

Joint MPH program

Addis Continental Institute of Public Health and University of Gondar

The Knowledge, Attitude and Practice of Puberty and Feminine Hygiene among elementary school girls in Addis Ababa and selected districts of Oromia region and its consequence on their school attendance

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Acronyms

AIDS: Acquired Immune Deficiency Syndromes

EFAWE-U Foundation, the Forum of Africa Women Educationalist- Uganda

FGM Female Genital Mutilation

FGD Focus Group Discussion

HIV: Human Immune Deficiency Virus

INSYGHT Initiative to Save Young Generation's Health Today

KAP: Knowledge, Attitude and Practice

NGO Non Governmental Organization

RH: Reproductive Health

UNICEF United Nations Children's Fund

UNFPA United Nations Fund for Population Activities

WHO: World Health Organization

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Abstract:

Background Puberty is accompanied by physical, psychological and emotional changes which trigger cognitive and behavioural changes. There is a great need to ensure a positive transition to manhood and woman hood in order to attain a successful reproductive life.

Objective: The over all objective of this study is to examine level of knowledge, attitudes and practice of menstruating elementary school girls on issues of puberty and menstruation and to explore its consequence on their school attendance and performance.

Method: Primary Qualitative data analysis and a secondary quantitative data analysis is used on selected 347, 10-15 years old menstruating elementary school girls in both urban and rural settings. The secondary Quantitative data taken from the primary data source was analysed using standard statistical programs, EPI info version 3.2 software and SPSS 15

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Major findings: Although 206, (59.4%) rate their knowledge of puberty as good or better and 174 (50.5%) rate their knowledge of menstruation to be good, most of them,

305, (88.9%) strongly agree or agree that they need to know more about puberty and menstrual management. . Only 26(7.5 %) nearly know the fertile period of female in a monthly cycle. 37.4%, of the respondents strongly agree that they are less confident during their period. 56 % of all girls responded that school latrines are not friendly for use. 78 % girls missed class from 1-7 days and the major reason being the toilet and inconvenient and unfriendly school sanitation. In the qualitative study it was clearly stated by the girls that onset of menstruation will inevitably have an impact on girls' school attendance and participation. The prevalent reality of poor sanitary facilities, very limited information and low knowledge about menstruation and its management affect their school attendance and performance.

Conclusions and Recommendation: Lack of knowledge and appropriate information on puberty and menstruation, absence of girls' friendly and conducive sanitation facilities in the school and appropriate protective sanitary materials are major problems associated with puberty and menstruation and the causes for interrupted school days. Providing an appropriate educational program on puberty and feminine hygiene improves girls' knowledge, attitude, and practice and lower absenteeism. Improved school sanitation and creating more conducive and girls friendly environment is a paramount importance to encourage girls confident enough to come to school

I. INTRODUCTION

Background

The World health Organization (WHO) has defined adolescence as the age of 10 to 19 years which coincides with puberty age. Puberty is accompanied by physical, psychological and emotional changes which need a positive out look to ensure reproductive and parenting success. This process manifests a complex endocrinology changes that lead to sexual maturation and reproductive capacity. Adolescent girlhood is always a critical time of identity formation and a period of transition from childhood to womanhood. In most societies, menarche is an indication of a girls' developing sexuality.¹

The onset of menstruation amongst girls is a factor that greatly impacts the education of the girl child in many parts of Sub Saharan Africa and Asian countries. This natural onset forces them to be absent repeatedly from school which has a direct impact on their academic achievement and rate of transfer to the next level of education and number of years of study.

Researchers throughout sub-Saharan Africa have documented that lack of sanitary pads, a clean, girls-only latrine and water for washing hands drives away a significant number of girls from school.²

The United Nations Children's Fund, for example, estimates that one in 10 school-age African girls either skip school during menstruation or drops out entirely because of lack of sanitation.

Ethiopia education statistics annual abstract by ministry of education indicated that the availability of sanitation facilities in the schools (water and toilet), 40% of all schools have water

and only 71.1% of all schools have latrine.(3) (mostly with very poor standard not separated for girls and boys pit latrine with wooden or mud floor).

School dropout in Ethiopia is caused by poverty and food insecurity which, in turn, are linked to large family size. Early marriage, abduction, gender-based violence and minimal community support are other factors contributing to girls dropping out of school. Indirectly, girls may also miss school because of inadequate school facilities, such as gender differentiated toilets as well.

The other big gap is observed in the area of awareness and access to appropriate information on puberty and menstruation. In most rural setting in Ethiopia and other third world countries menstruation itself is a taboo and because of this problem adolescents are in most instances reluctant to ask information or help from adults in their families, communities, or in professional settings. The issue of puberty and menstruation until recently was considered unfit for discussion and girls, in particular, are often kept away from learning about sexuality and health issues because of cultural and religious beliefs⁴ Schools may also lack designated staff to counsel and advise girls on how to address or overcome issues associated with puberty and menstrual problems. Appropriate health education concerning their periodic development is a paramount importance to improve their knowledge, attitude and practice in this crucial time of change. Hence, the study tries to examine how puberty and puberty associated issues affect young girls who have started menstruation and highlight the relationships and connection between puberty menstrual management and school performance of girls.

II. Rationale of the Study

The rationales of this study are;

- ❖ To understand the current status of knowledge attitude and practice of elementary school girls and explore the gaps in connection with feminine hygiene and management of menstruation and its effect on their school attendance and participation.
- ❖ To highlight area of barriers for girls related to puberty and menstruation and to indicate additional gaps and constraints associated with sanitation and feminine hygiene
- ❖ To understand the general perception and understanding of teachers and parents on puberty, menstruation and feminine hygiene and identify the knowledge gap.

III. Literature Review

The onset of menstruation signals a critical moment in a girl's transition to young adulthood. Puberty and the initiation of menstruation and challenges associated with social and psychological conditions can have quite significant impact on girls' education and school attendance and performance. There is a great deal of need to understand the perception, responses and cultural values around menstruation within the community. Studies done in other countries on how puberty impact young girls who are transiting to puberty age and their education confirms that it is a great concern mainly to the developing countries. Anecdotal evidence from a number of countries suggests that a main reasons that the onset of menses disrupts schooling are familial expectations that a post-pubescent girl will marry and move to her new husband's home, thereby removing her from her school. Report that parental fears about sexual abuse can mean that for unmarried girl's movement is often restricted after menarche;(1)

In rural Peru, a girl who has begun to menstruate is perceived to be different by the community. Girls' self-perception changes dramatically after menarche. They see themselves as women

rather than girls. Attitudes intensify adolescent girls' feelings of exclusion and inadequacy and lessen their desire to attend school. The minimal information access and lack of appropriate knowledge and understanding about menstruation amongst girls themselves can strongly suggest that menarche changes a girl's self-perception and the way she is perceived by her family and the community.

To make the condition even worse, Parents send conflicting messages to their daughters. On one hand, they believe girls should adhere to gender-specific roles and begin to focus more attention on domestic tasks traditionally assigned to women. They reaffirm existing perceptions that girls don't need to continue their studies.⁵

Foundation, the Forum of African Women Educationalists, Uganda (FAWE U) pragmatic and thoughtful proposal for improving the lives of girls maturing after them, represents the power and importance of the findings. Equally valuable was the effort to place these young women's experiences within the social, economic, and political context of a globalizing world. the study underscore that there are public health and education interventions that could be implemented now to improve young women's chances of remaining in school, and their overall health and well-being.

Another big gap seen at the onset of puberty and menstruation is that, girls are left to cope with psychological and physical effects of sexual maturation on their own as parents, teachers and the community as a whole do not give them support during this time of change. Teachers are overwhelmed with a massive workload and feel too burdened to take on the task of empowering the girls while male teachers have the added obstacle of feeling that it is a role that females only should play. Parents as a whole feel that they are incapable of teaching the girls

about sexual maturation and menstruation, fathers because they feel it is a female task and mothers because they feel shy about approaching the topic, preferring to leave it to teachers. While everybody “passes the buck” to someone else, the girl is left to collect scanty information on her own and basically guide herself into womanhood.

In the same study done by FAWU Uganda they found that along with lack of knowledge and understanding about menstruation amongst girls themselves, other members of the community, including the male members of their families, were completely uninformed as well. Fathers, uncles, brothers and male cousins appear to have very little factual information on menstruation. They understand it as a mysterious weakness of women rather than a biological and normal recurring experience of life for post-pubescent girls and women. This likely serves to reinforce misunderstandings about natural bodily processes, and to perpetuate the stigma that is attached to menstruating women and girls. Girls explain that menstruation is a taboo subject even within their own families, describing a ‘culture of silence’ with regard to their menstruation. They feel unable to discuss menstrual issues with their mothers and certainly not with their fathers. Not being able to talk about their experience and having limited information means that menstruation becomes something shameful and something to hide, and is consequently ignored in families, schools and communities (1).

With these psychological burdens come the added physical burdens upon the girls as some have undergone female circumcision, making menstrual pains exceedingly painful. Furthermore, the

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girls come from extremely impoverished backgrounds where sanitary pads are truly unaffordable. This leaves the girl to cope as best as she can with improvised pads such as rags, tissue paper, cotton wool or even old newspapers and camel skin. It is then unsurprising that the girl can not concentrate in class nor participate while she is worried that the make-shift pad may fall or that she may stain her clothes. The girl cannot then be fully faulted for preferring to stay home rather than go to school, possibly learn nothing the whole day and yet be embarrassed in front of her male and female classmates.

In sub-Saharan Africa, adolescent girls' participation in school is generally very poor⁶. Even in contexts where gender parity is achieved in the early grades, by late primary school (Grades 4 or 5) the numbers of girls in school has dropped significantly. To look at the retention and successful completion rates provide a stronger test of Education for All (EFA) achievements and more particularly of achievement of the Millennium Development Goal Number 21. In an International Rescue Committee⁷ study of primary schools in Guinea, although girls represented almost 50% of students in early grades, they made up only 34% of those who complete the cycle at Grade six. Similarly, as found by in southern Sudan, enrollment rates of girls in Grade 1 are already very low (an average of only 26% of total enrollment) with a drop to 21% at Grade 8 (an absolute drop of more than 20,000 girls).⁸ Such drops in girls' participation can be attributed to multiple factors, sexual maturation, and the subsequent impacts on their educational access and experience.

On the Other hand menstruation may seriously affect girls' attendance, attention, and achievement in school in both rural and urban areas. The absence of clean and private sanitation facilities that allow for menstrual hygiene may discourage girls from attending school when they menstruate. In addition, if a girl has no access to protective materials, or if the materials she has are unreliable and cause embarrassment, she may be forced to stay at home while menstruating. This absence of approximately 4 days every 4 weeks may result in the girl missing 10 to 20 percent of her school days. Inevitably, it will be difficult for a girl who misses so much schoolwork to keep up.⁹ This is a reality in many instances that can interfere in girls' education and schooling. From a very practical perspective, girls who lack adequate sanitary materials may miss school each month during their period. If girls attend schools they may be unable to remain comfortably in class during their menstrual cycle because of lack of adequate latrines and water supplies for girls to comfortably change sanitary pads and wash themselves in privacy. In southern Sudan, for example, the lack of sanitary protection during menstruation is often mentioned as a barrier to girls' regular attendance in school. (1)

In the study done in rural Peru indicated that Formal education is not accommodating to menstruating girls. Girls do not have adequate support in school during menstruation. Schools lack bathroom facilities, water, and sanitary supplies. The prospect of sitting for long periods of time and staining their clothes with blood and being noticed and teased by boys and other on lookers makes adolescent girls feel anxious and uneasy. Their psychological discomfort is compounded by physical symptoms such as headaches and fatigue, which may be aggravated by malnutrition and contribute to poor school performance and absenteeism. School rules and regulations make it difficult for girls to attend and participate in school activities during menstruation. The requirements for certain physical exercises do not always correspond to girls'

needs. Many teachers (especially male teachers) are not sensitive to the special needs of girls during puberty and are unprepared or choose not to provide the support and guidance girls need.

In another study done in Tanzania indicated that a gender gap in girls' education at all levels of the school system continues to exist in Tanzania and across sub-Saharan Africa. One unexplored aspect of this inequity is how the onset of puberty, and menstruation in particular, may be impacting on girls' attendance, participation, and completion of schooling. The lack of affordable menstrual management materials and sufficient water and sanitation facilities within school grounds; the social and cultural pressures that arise for a girl as she becomes a young woman within the local society; and the implications of womanhood for a young woman's sexual health, well-being, and continued academic focus.¹⁰

In a comparative assessment study on subjects' knowledge, attitude and practice, concerning puberty health programs done in Iran again underscored that an appropriate health education concerning their periodic development is of importance in community health services. The study confirmed discussion panels to be more effective in puberty health education for Iranian teenage girls.¹¹

In a study done by FAWE Uganda (Foundation, the Forum of African Women Educationalists), it was clearly indicated that school sanitation and absence of girls friendly environment, absence of provision of sanitary and protective materials by parents or schools to be one of the very fundamental reasons to increase the girls drop out rate and minimal school participation. For girls who cannot afford to buy washing soap, regular cleaning of her uniform or school clothes may not be easy. This situation means that for many girls and young women it is preferable to stay at home during menstruation and not to attend school at all. In particular the

reports speak to the prevalence of overcrowded and overflowing toilet cubicles currently existing in far too many sub-Saharan African schools. 'Beyond being health hazards, they [unsanitary conditions] are symbolic of the failure of the education system to provide essential facilities to ensure that children, especially girls are not. There are rarely separate cubicles for boys and girls and the cubicles that do exist provide little privacy. While such poor facilities contribute to creating unfriendly school environments for all children, they are particularly so for menstruating girls. UNICEF estimates that about 1 in 10 school-age African girls do not attend school during menstruation, or drop out at puberty because of the lack of clean and private sanitation facilities in schools. Few schools have any emergency sanitary supplies for girls, and communal toilet facilities are generally very unsuitable for changing sanitary pads given a lack of water, and of sanitary material disposal systems. (8)

In Ethiopia large numbers of 10-14 year olds girls is from poor families and communities are forced to transition very quickly from being "children" to taking on more adult roles – such as caregiver, spouse, bread winner and parent. Premature school-leaving increased need for contribution to family economy such as unpaid domestic labor, paid labor, migration to seek economic opportunity, Social isolation, FGM, and Early marriage.

School dropout in Ethiopia is caused by poverty and food insecurity which, in turn, are linked to large family size. Parents with large families do not send all their children to School. Usually boys are sent if children are sent at all. If girls are sent, they are often pulled out of school for different reasons, such as having to help with household chores or work to provide supplemental income. Indirectly, girls may miss school because of inadequate school facilities, such as gender differentiated toilets. Early marriage, abduction, gender-based violence and

minimal community support are other prominent factors contributing to girls dropping out of school. Schools may also lack designated staff to counsel and advise girls on how to address or overcome these types of issues.¹²

The emergent issues for girls by age 12 is Sexual maturation, Consolidation of gender norms, Disproportionate care (concern) on domestic work burden, Withdrawal from and/or lack of safety in public space, School leaving and school safety, Loss of peers, Migration for work and Pressure for marriage are some of the predicament facing the girls as they transit to adulthood. Despite their emergent vulnerabilities, 10-14 year olds are frequently neglected in research, policies and programs "they slip through the cracks" no longer eligible for child health programs and not considered by conventional youth, maternal and reproductive health programs. Early intervention may also create new opportunities for effective programming. It may be easier to reach 10-14 year olds – before they leave school, while they live in their home communities and before they migrate. Limited programming experience indicates that 10-14 year olds may be more open, flexible, and creative and they are easier to work with. It is reasonable to hypothesize that it may be easier to promote the development of positive behaviors rather than change stubborn and entrenched negative ones. Continued education, programs are needed such as Social and peer support and protection, Safe places to meet, learn and recreate. Personal assets/life skills promotion, Positive health habits/information/services, and opportunities for personal and professional development close to home.¹³

Finally as stated in an Iranian study on ‘Effects of puberty health education on 10-14 year-old girls’ knowledge, attitude, and behavior” it is as well indicated that an appropriate educational programs including physical and psychological changes, as well as the appropriate nutrition

during puberty, improves female adolescents' knowledge, attitude, and behavior. To give teenage girls the opportunity to enjoy their youth before becoming a mother is necessary to educate them about reproductive health issues.¹⁴

IV. General Objectives

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The over all objective of this study is to examine level of knowledge, attitudes and practice of menstruating elementary school girls on issues of puberty and menstruation and to explore its impact on their school attendance and performance.

V. Specific objectives:

- ❖ To assess the gaps in the level of knowledge, Attitude, and Practice of girls who have currently started menstruation on puberty, feminine hygiene
- ❖ To asses the effect of menstruation on girls class attendance and participation
- ❖ To examine and summarize the level of knowledge and attitude of parents, teachers on puberty and the level of support that the girls get at home and school.
- ❖ To explore the multi level assistance of regional and woreda education offices and school management in supporting the girls through sexual maturation issues to minimize absentees due to menstruation and other problems in relation to puberty.
- ❖ To identify the knowledge attitude and practice gaps between urban and rural girls and explain the causes behind for the differences.

VI. Methods of the study

a) Quantitative

Secondary quantitative data analysis [data source: Puberty and feminine hygiene baseline study done in Sep. 2008 by save the children USA INSYGHT program]

The secondary quantitative analysis was done based on appropriate representative sample calculation using EPI info version 3.2 software and SPSS 15 on the main study interest variable for the study i.e (The level of knowledge attitude and practice among menstruating girls on puberty, feminine hygiene and sanitation) The data was analyzed from those 347 students who responded that they have started menstruating.

The study focused and analyzed a number of specific questions asked to girls about their most recent Knowledge, Attitude and Practice and experience in their school attendance, sanitation and feminine hygiene and if there is any difference in the level of school attendance, participation and absenteeism in for urban, and rural girls.

The secondary data sample size was estimated on the assumption taken on the primary data that

A probability of detecting the real value , confidence interval (CI) is 95%

Considering no previous study or data on the level of Knowledge, Attitude and Practice, the proportion of interest variable is 50%

Expected marginal error 5 %

10% non response rate

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b) Primary Qualitative data

Primary qualitative data FGD and in-depth interview

i. FGD

To triangulate the outcome of the research, a primary quantitative and a primary qualitative study were conducted using focus group discussion (FGD) and key informant interviews. FGDs were conducted with menstruating girls, their parents and teachers who teach in 4th and 5th grade in the selected schools to assess their knowledge, attitude and support on puberty and feminine hygiene and sanitation issues. In addition, key informant interviews were conducted with education bureau heads at regional, zonal and woreda level to explore the existence of policy guideline which assist girl students during puberty and menstruation to minimize absenteeism and girls' school drop-outs.

The focus group discussions were intended to explore how puberty and menstruation affected girls in age range 10-15 girls in Grade 4 and 5. It also tried to explore their knowledge, attitude, practice, experience and challenges that they are facing at this young age. In addition, the study also tried to make an observation of sanitation facilities like toilet and water availability which make the school environment girls friendly.

Five FGDs were conducted with girls (8-10 participants per group), five FGDs with parents and five FGDs with teachers. In total, 49 girls, 39 teachers and 42 parents participated in focus group discussions.

The discussions were moderated by trained experienced female facilitators, based on Focus group discussion guidelines assisted by live tape recording.

The recorded interviews were transcribed, translated and coded by the researcher using the OPEN code software.

ii) Key Informant interview

In-depth interview was carried out to capture detailed information from woreda zonal and regional bureau to exhaustively assess and discuss relevant issues to this study. Six key informant interview participants from Addis Ababa, education bureau and Oromia Education bureau, 4 woreda,(wolisso, dendi, Agaro and Limmu) education bureau heads and 2 zonal (Jimma zone education bureau) education supervisor experts were included in the process of this study.

The discussions were conducted based on pre-developed in-depth interview discussion guides aided by live tape recording.

c) Study population:

The secondary quantitative study focused on 347 4th and 5th grade girl students age 10-15 in selected elementary schools in Addis Ababa and five woredas of Oromia Region, Dendi, wolisso,Agaro and Limu.

The primary Qualitative study also took ,4th and 5th grade girl students from the same selected elementary schools, their Parents, their teachers, education bureau experts and woreda education office heads in Addis Ababa and Oromia Regions. In this connection a total of 49 girls, 39 teachers and 42 parents and 4 regional and woreda heads were included.

The study sites and the class grades which were considered for this baseline survey were purposefully selected as they are the program interest and intervention areas for Save The children INSYGHT program

d) Sample size and sampling

. The study took purposive sample of 347 menstruating girls as study subjects from the total of 814 study population in the primary data which employed a cross-sectional random sampling method to choose girls in 4th and 5th grade of all target schools.

e) Survey Instruments

A structured questionnaire developed by Save the Children was translated into the local language, pre-tested and administered (see Annex) .This questionnaire was administered by trained teacher through face to face interview in the local language.

VII. Data Analysis

i) Secondary quantitative data analysis: The quantitative data was entered and analyze using Epi- info version 3.2 software and SPSS 15 on the main study interest variable for the study i.e (The level of knowledge attitude and practice among menstruating girls on puberty, feminine hygiene and sanitation and their Attitude and Practice and experience in their school attendance) the study also tried to evaluate if there is any relationship for urban, and rural settings on school participation and absenteeism

ii) Primary qualitative data analysis: The recorded interviews were transcribed, translated and coded by the researcher using the OPEN code software.

VIII) Operational definitions

Knowledge: Knowledge about biological changes in puberty, menstruation and management of feminine hygiene

Attitude: feelings or thoughts towards menstruation

Practice: coping up mechanisms to minimize menstrual problems and its management

Rural study sites out of Addis Ababa, Wolisso, Dendi, Agaro and Limmu

Urban, Addis Ababa

IX Ethical considerations

The study protected the rights of subjects. It also maintained research integrity throughout the process. Due care was taken to ensure that all who participate in this study were involved voluntarily by giving written consent. Each participant was informed about the purpose of the study and was assured that the information obtained from the participants will be kept confidential. In addition, participants were reassured that they can at any time refuse or change their minds on their participation or it is their right not to answer any part of the question if not willing. Data collectors were also trained on the ground rule of interview and were strictly instructed to maintain the right of the participants.

X) Results

a) Socio-demographic profile

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From selected 347 menstruating girls the percentage distribution for is Oromia is 59 % and for Addis Ababa 41 %. Again the study subjects are selected from 4th and 5th grade girl students This study also confirmed that the age of menarche for the interviewed menstruating girls starts as early as 9. The mean age from the total samples was 13.7 ± 1.2 yrs, median being 13 and the mode 13

Table 1: Age distribution of respondents by region, ~~Age * by region~~ 2008

Addis Ababa		Oromia
Age		
9-11	5	8
12-14	96	153
15-17	41	43

18	0	1
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55 %, of all girls live with both of their parents, the next majority of girls 14.4 % live with their biological mothers, 5.2% live with their biological fathers 7.2% of the girls live either with their grandparents and 7.8% live with other relatives. The remaining percentage is distributed for girls who live alone, live with their siblings or with employer. When compared by region 60% and 40% of t girls interviewed live with both parents in Addis Ababa and Oromia respectively. 13% of girls in Addis Ababa and 14% of girls in Oromia live with their mothers and like wise 3.2% and 6.2% of girls live with their fathers in Addis Ababa and Oromia respectively.

Table: 2 Living arrangement of girls age 10-15 years in Addis Ababa and Oromia, 2008

Living Attangement	Addis Ababa N(%)	Oromia N(%)	Total
Alone	1,(0.71%)	6,(2.8%)	7,(2%)
Both parents	95,(68%)	99,(48%)	194,(55%)
Mother	19,(14%)	31,(15%)	50,(14.4%)

Father	5,(4%)	13,(6.2%)	18,(5.2%)
Siblings	5,(4%)	14,(7%)	19,(5.5%)
grand parents	6,(4.2%)	19,(9.1%)	25,(7.2%)
other relatives	7,(5%)	20,(10%)	27,(7.8%)
friends	0	2,(0.97%)	2,(0.58%)
employer	2,(1.4%)	5,(2.4%)	7,(1.4%)
total	140	207	347

b) Knowledge of biological changes during Puberty

As shown earlier girls rate knowledge as high, but the data indicate that there are major gaps Knowledge about common biological and physiological changes related to puberty was identified by a multiple answer questions and 274 (79 %) of 345 respondents identified breast enlargement,148 (42%) body growth and the girl can have developed hip and well structured feminine posture and be more womanly and 137 (40 %) identified hair growth under armpit and around face for the boys and genital area,176 (50.7%) of all said there is voice change in boys 278 (81 %) recognized that puberty is associated with menarche.

Figure 1: Knowledge about Puberty among girls 10-15 years in Oromia and Addis Ababa, 2008

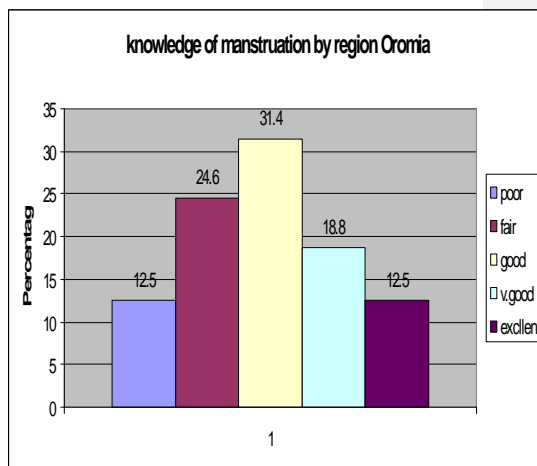
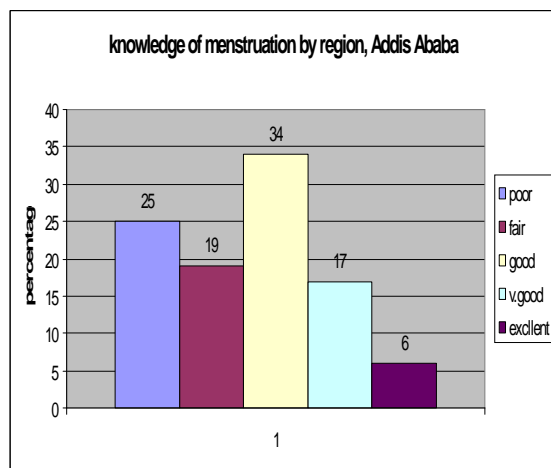
*(*No, no answer, poor only one answer, fair two answers, good three answers very good four answers and excellent five answers)*

c) **Self Assessment on knowledge of menstruation**

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Among 347 respondents who reported menstruating 137 (80.66%) rated their knowledge of puberty to be poor or fair while 112 (65.4 %) said have good knowledge. Again knowledge about menstruation revealed that 137 (39.7%) have poor or fair knowledge while 174 (50.5%) say that they have good knowledge of menstruation. Although 206 (59.4%) rate their knowledge of puberty as good or better and 174 (50.5%) rate their knowledge of menstruation to be good, most of them, 305 (88.9) ,say strongly agree or agree that they still need to know more about puberty and menstruation management.

Figure 2: 3, Knowledge of Menstruation of respondents Addis Ababa and Oromia region 2008



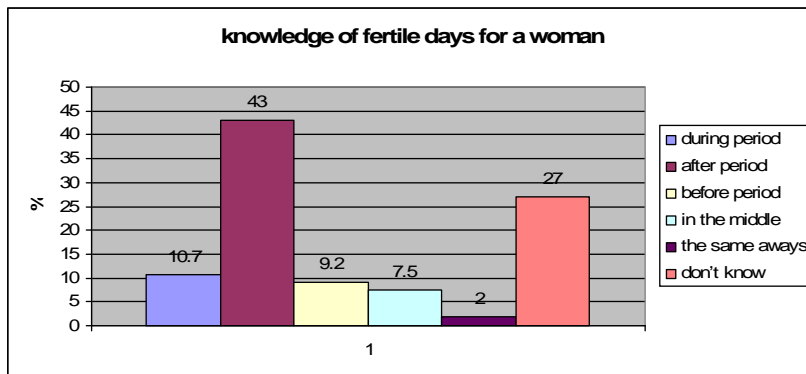
This study also revealed that there is a substantial knowledge gap of puberty, menstruation and identification of fertile days of a woman. this was further statistically analyzed for its significance and The chi square showed significant knowledge gap about women's fertile days $p < 0.05$ at 95% CI

d) Knowledge about fertility

Knowledge regarding the fertile periods during menstrual cycle was asked and it shows that there is a consistent lack of knowledge and misconception of when the fertile time is during the menstrual cycle. Only 26 (7.5 %) of 347 nearly know the fertile period of female in a monthly cycle. Unfortunate, 320 (92%) don't actually know when a woman can get pregnant or appropriately identified the fertile days of a women. Chi square test show significant knowledge gap on fertile days of women, $p < 0.05$ at 95% CI. This variable was further analyzed if it has any

difference in urban and rural schools girls and showed no marked difference. The study revealed that only 3 out of 44 (7%) in Addis Ababa and 23 out of 302 (8%) of Oromia (rural) girls know when a woman gets pregnant in the menstrual cycle.

Figure 4: Knowledge of respondents on fertile days of a woman, Addis Ababa and Oromia region 2008



e) Information Access on Reproductive Health, Puberty and Menstruation

The FGD discussion shows that girls have little or no access on information about puberty and menstruation. All teachers agree that the girls have little access to information and awareness to put on necessary knowledge on puberty and menstruation in the school environment, as the subject is only touched upon in schools during Science lessons.

The only chance for girls and kids in the school to get information on reproductive health and puberty related issues is through school mini-media sessions. They have got information on abstinence- no sex before marriage, personal hygiene and menstruation. The other source of information on puberty, menstruation and personal hygiene is through 'girls club' which is available almost in all schools and assist girls through provision of counselling and education about reproductive health subjects

“Most of the time we get information from ‘girls club’ in school. The female teachers and other peer girls who are the members of the club support each other and share information on reproductive health, family planning, HIV/AIDS, STI and sometimes even on menstruation.”

Said a girl who was participating on the FGD

Again the FGDs revealed that they were very afraid at their first period for different reasons mainly because they think it will be taken as the girl was engaged in asexual activity. This is also one of the reasons that the girls say they don't want talk about it with their parents or any one. There is no much support from the families as well

11 years old wolisso elementary school girl student said "my period started at night while I was asleep. In the morning when I saw I was bleeding I was so afraid and in shock. I just kept quiet and went to school. I told my friends about it but I didn't tell any one from my family because it is not good and scary. It is not usual to tell family about such things. They will be suspicious that I have started some thing bad. Because I am going to school they may think I am staying in the jungle with boys. That I am not a good girl any more and my mother will get angry with me and I don't tell her".

Another girl from Limmu elementary school said

"Our parents don't discuss things like that we don't discuss any thing over this issue. We are scared to discuss about our period"

Few girls talk to their mother, elder sister, female friends and sometimes elder brothers about how to prepare for first time menstruation experience, how to keep personal hygiene and the relation between menstrual cycle and pregnancy.

"When I had menstruation for the first time it was so difficult to manage. For the first time, I discussed with my female friend at school then to my elder sister. Both assisted me on where I can find the cloth/ pad and how to keep my self clean. My sister elder gave me soap and clean cloths for the first time after wards I learnt to manage myself. It has been three years since I had my first menstruation and now I am open to discuss with even with my teachers." **14 years old 5th grade girl**

When we see the family support on this issue it seems the Addis Ababa parents are more open and exposed to information on puberty and feminine hygiene. One of the Addis Ababa parent FGD participants said

"I usually follow up my child and see her progress in body growth and other changes. we have also passed this time and I don't want my child to suffer and see what I have gone through. The first time when she saw her period she run to me and told me about it. We openly discuss all issues about it"

One of the parents from the Oromia FGD said

" I don't talk about it and they don't tell me either. But I know they are having it. When they are out of the house I will see what they have in their boxes and if by chance they have some pants or cloth material not washed I will wash it for them. We deal with it quietly"

Generally, girls prefer to get information from their female friends, elder sisters, and mothers and sometimes with their female teachers.

Table 3: Summary of girls' information sources and information challenges (extracted from FGD discussions) 2009

Source of information	Major challenges raised by informants
School: Girls club, school mini-media, school curriculum , peers	<ul style="list-style-type: none"> • Lack of strong clubs • Mini media educations do not emphasize on girls puberty and menstruation related topics • The school curriculum is not sufficiently covering the topic • Lack of training and teaching materials on puberty and menstruation • Low level of teachers involvement towards assisting girls as teachers explained
Home and surrounding: Discussion with female friends, Sisters, parents and family member	<ul style="list-style-type: none"> • Parents low level of support as teachers explained • Low level of parents and family members knowledge on the subject as teachers and parents explained • Lack of forums to teachers- community- parents to deal on ways to assist girls

f) Communication about puberty and menstruation

the study also focused on the communication and discussion about puberty with adults; the majority, 209, (60.9%) reported that they do not discuss puberty issues with any adult while just

over a third 134, (39.1%) reported they do discuss. However, talking to adults was not significantly related to school attendance according to chi-square. Lack of findings may be related to the fact that parents are not well engaged to talking to their children about puberty and menstruation. in this connection a question was further asked about who they would be comfortable talking with about puberty issues, relatively few reported that they were comfortable talking to their parents. Only 8 girls that is less than 3 percent reported they would be comfortable talking to their father; 88, (32.1%) reported that they would be comfortable talking to their mothers. Generally 139, (45.7%) of girls interviewed reported that they are most comfortable to talking with their friends (Other groups in order of reported comfort are: siblings (14.2%), teachers (5.5%) health workers (1.6%).

g) Cleanliness and personal hygiene

Knowledge of their personal hygiene and keeping themselves clean was also looked at and 109, (42.6%) said being clean is face washing, 266, (85%) said taking bath and 202,(71 %) said wearing a clean cloth. They also reported that during menstruation they can keep them selves clean through daily bath, using clean or washed cloth rags as protection, frequently changing pants and dresses. In most areas there is no major problem in getting washing materials like water and soap at home (they usually fetch water from the river or spring in the rural areas which can make it a bit scarce). The knowledge and practice of cleanliness has no significant difference between Rural and urban schools, that is 128 of 139 (92%) of Addis Ababa respondents and 186 of 206 (90%) Oromia respondent say they know how to keep themselves clean.

When asked about cleanliness and personal hygiene in the FGD

"My sister told me that I have to wash and be clean and careful, she said, if the boys see this thing they will make fun of you" 13 year old FGD participant

"We wash our body, usually partially. We change the piece of cloth we are using wash them and keep them clean" Agaro Ras Desta elementary school students

Education on personal hygiene and sanitation is provided in grade 1 to 4 in the curriculum. Though it is given as a subject, the situation seen in practically all schools is not very promising. It seems this issue is taken as a secondary importance to the teaching process. But it is believed that it is in the school that students can learn about sanitation and personal hygiene management. The schools should be the appropriate place for most of the children to learn and be instrumental in motivating their families for improved behavior over personal hygiene and cleanliness. It is in their school where they learn and exercise personal hygiene and sanitation so that they can be role models in their families and in the community.

h) Menstruation and its impact on school attendance and class participation

It was evident from this study that girls would miss school during their period days. In fact, the study found out that lack of appropriate sanitation facilities in the school for girls, lack of adequate and "appropriate" sanitary protection which attributes to limited and restricted movement. Absence of training on period management and feminine hygiene in the education system or in the school can have considerable impact on their school attendance. This is because girls will absent themselves from school if they cannot manage their period.

the study 72,(20.7.%) of girls missed classes 1-3 days and 28 8.1% missed 4-7 days because of their period. If we further calculate number of class periods missed it will be 6-18 periods in

three months time which is quite significant to impact their class attendance and performance. This finding for urban and rural girls has no much difference.

It was evident from this study that girls would miss school during their period days. In fact, the study found out that lack of appropriate sanitation facilities in the school for girls, lack of adequate and "appropriate" sanitary protection which attributes to limited and restricted movement. Absence of training on period management and feminine hygiene in the education system or in the school can have considerable impact on their school attendance. Girls will absent themselves from school if they cannot manage their period which can be a reason for them to miss school, interest and less self-confidence which directly reduce their class involvement and interaction. Almost all teachers participated in the FGD think that period days have considerable impact on girls' class participation. They believe that most girls during period/ menstruation have illness, lack of attention and less participation.

Table 4, School days missed in the last three months Addis Ababa and Oromia, 2008

Number of days missed	# of girls	%
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none	199	58.0
1-3 days	72	21.0
4-7 days	28	8.2
7-14 days	11	3.2
15-21 days	4	1.2
22-28 days	5	1.5
don't know/don't remember	24	7.0

A potentially important comment was also made by a male teacher in Limmu who said

“We know when girls are on their period even the intelligent girl will be silent and don't want to move herself from the seat, they don't attend well. When a teacher walks towards her seat, he can simply sense her anxiety and her unspoken pledge not to be asked or to stand up from her eyes”

A 14 years old student from wolisso also responded for the question asked if period days are difficult for them to participate in class and she said.

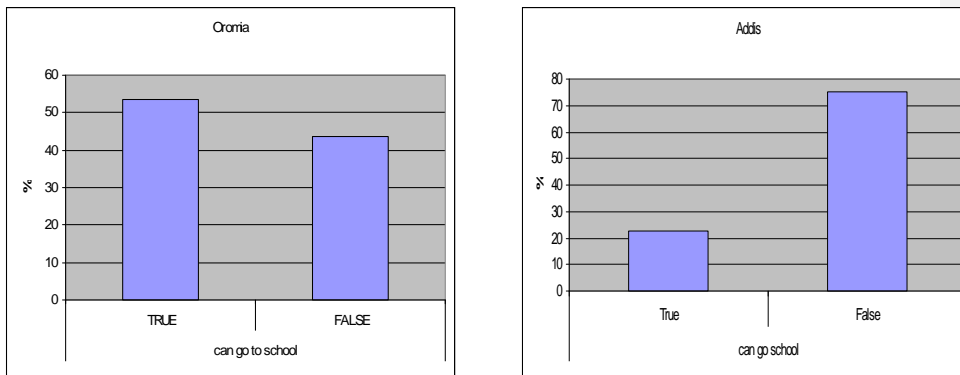
"It is different, when we are on our period we don't want to be asked or stand up to answer questions, we don't want to do physical exercise and we usually stay in the class during sport

periods. we don't have full participation, concentration and interest like the other normal days, we are present in body only, we are thinking of if our dresses are solid or stained. It is very shameful, the boys will laugh and ridicule us. There was one girl in another class and one day they saw it on her dress and they are still call her "fire brigade" she is always ashamed of her self and not at all comfortable in the school".

i) Feelings about going to school during period

An assessment of attitudes towards going to school, while menstruating was done using true false question and quite substantial percentage (47.8%) of the girls disagree with the statement “Can go to school while menstruating, 53% of 299 in Oromia and 75% of 44 in Addis Ababa who responded to this question said they can not go or (don't feel like going) to school during their period.

Figure 5: 6, respondents feeling about going to school during period Addis Ababa and Oromia, 2008



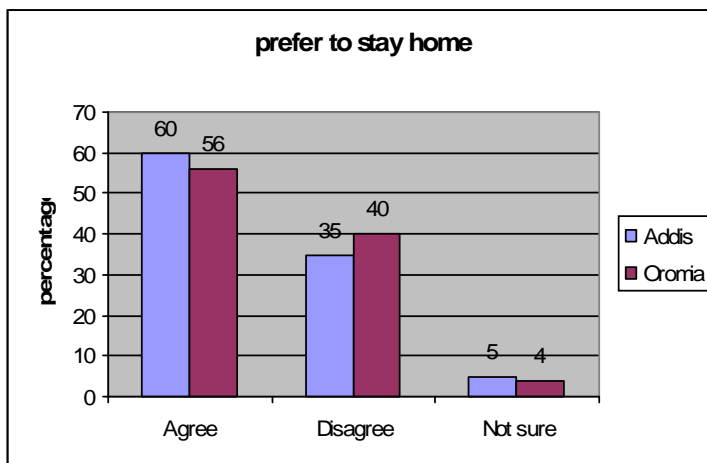
j) Reasons for missing classes

Further the study tried to look in to the main reasons to miss classes during time of menstruation and , quite substantial number of respondents, 60% of 330 said that they fear that

they will be ridiculed by school kids if they by any chance have their dresses soiled with blood, so they quite classes till the flow is minimal and manageable; the next 34.2% of most frequent reason that was mentioned by all is the general feeling of sickness and 21.8% said they don't want to come because of poor facility conditions in the school and that they don't want to use the school latrine during their period. This variable was further analyzed for the reason why they say school latrines are not convenient 70% of 44 girls from Addis Ababa and 54% of 299 girls from Oromia said they are not girls friendly, 40 girls in Addis and 32 girls from Oromia respectively said they are not convenient

k) Preference to stay home

Question posed about their attitudes (put in exact words of statement. if they prefer to stay at home while menstruating; this was captured using a five grade likert scale. The un-stratified result shows that those who agree and disagree are almost in equal proportion, 28.2% and 27.6% respectively. the comparison between the regions showed not much difference for the rural and urban school girls.



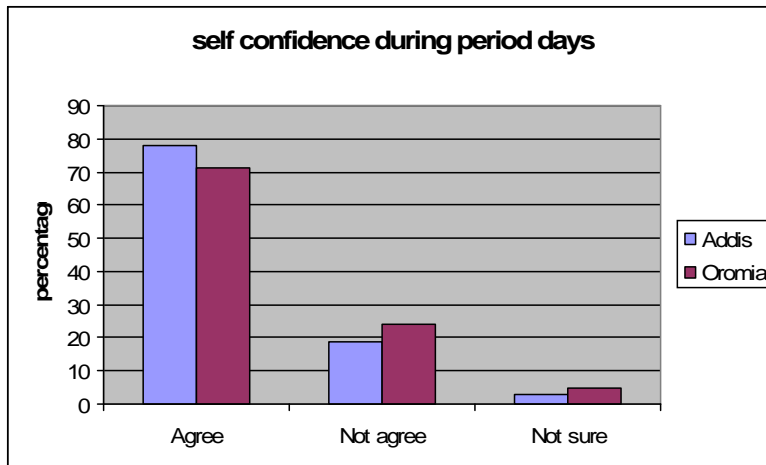


Figure 7:
Respondents

preference to stay home during period days Addis Ababa and Oromia region 2008

1) Feeling less self-confident than other days

An assessment of their self confidence, while menstruating was done using five grade liker scale. The question that was presented to was “I feel less confident during my menstruation period”. overall 74% agree about the statement. In un-stratified analysis girls who strongly agree that they are less confident are 37.4%, followed by 35.4% girls who agree and only 16.4% disagree about the statement. This was again further analyzed if this relates to being an urban or rural school girl and it showed no much difference. Girls who disagree that they are less confident are much more likely (76%) to report that they attended school even though menstruating, this compares to 58% for those who reported being less confident.

Figure 8: Respondents self confidence during period days Addis Ababa and Oromia region 2008

m) Insecure during periods

All girls were asked about their attitudes while menstruating; this was captured using a five grade likert scale. The un-stratified result shows that those who strongly agree and agree are (68.2%) and strongly disagree or disagree are 20.8%, which shows a marked difference. The finding was further analyzed by region.

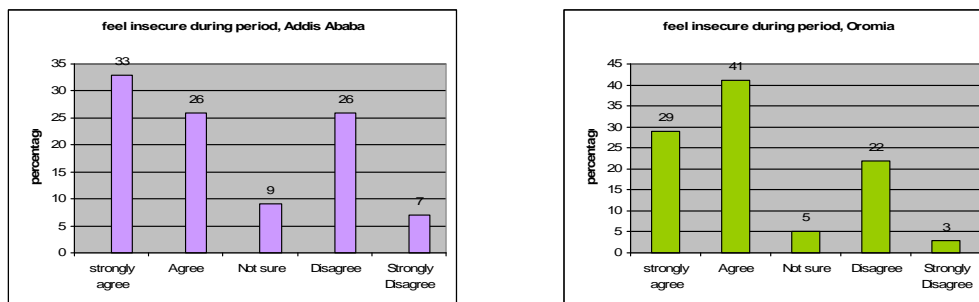


Figure 9,10: respondents feeling of in security during period days Addis Ababa and Oromia region 2008

n) Avoids physical activity

A five grade likert scale was used to measure the girls' attitude towards avoiding physical activity during menstruation. Among the 343 respondents, 33.8% has strongly agreed on the question followed by 28.6% who agree and 25.4% disagreed. But the proportion of those who disagreed is very minimal that indicate most of the girls avoid physical activities with very restricted movement during their period.

o) Use of sanitary protective materials during menstruation

Sanitary protection material use was explored in multiple response question, and it was found out that 123,(36.6%) use cotton,198,(58.9%) use cloth material and only 38,(11.4%) use commercial sanitary pads. Sanitary pad use was further analyzed for rural and urban girls. This resulted in a significant difference; 38 % of girls in Urban schools reported that they use commercial Sanitary-pads, while only 8% reported use in rural areas. This result shows statistically significant difference, in chi square comparison test, between urban and rural school girls, $p < 0.05$ at 95% CI. Most of the girls get first time information about sanitary material for protection is from their friends or elder sisters who use cloth material, cotton or pants and trousers. Parents may try to help girls get sanitary material with what ever is available in the house, old cloth material, pants and sometimes cotton buying appropriate commercial sanitary pads is unthinkable for most of the families as this is directly related to the economic constraints they are having. In addition the study tried to see the relationship between different sanitary pad use and class attendance Commercial sanitary pad use doesn't facilitate school attendance though girls using it said they feel more comfortable; and home made cloth materials doesn't prohibit girls from going to school.

Figure 11,12: Sanitary pad use by region Addis Ababa and Oromia, 2008

The FGD conducted with the girls in Oromia revealed that most of their families can not afford buy the commercial sanitary pads. One girl from Limmu said,

"We heard about it but we didn't see if it is available or not available in this area. Even if it is available I don't think my parents can afford to buy that thing for me every month".

A mother from Agaro said "we have more than one daughter and it is difficult to buy the thing that you are saying now. we can not afford to do that. Usually the girls are using what ever the mother or the elder sister is using in the house".

All FGD student and teacher participants concur with this idea. Both parents and girls described pads are not available and even if they are in the market most parents do think that it is not affordable to buy every month.

p) Availability of Sanitation facilities in schools

Girls may miss class each month during their period. this is as they said when they come to school they are confronted with lack of and inadequate and separate girls only latrines and

water supplies for girls to comfortably change sanitary pads or wash themselves in privacy, they may be unable to remain comfortably in class during their menstrual days. An observational assessment of convenience of the school latrines showed that; the majority (56 %) of all girls responded that school latrines are not good for use or friendly and when further probed why they are not convenient 132, (69.8%) say they are not girls only and not friendly, 25,(13.2%) said it is not at all convenient ,21,(11.1%) gave other reasons like no door, not clean etc

Those who agreed that latrines were convenient were more likely to not miss classes during menstruation (68%) as compared to (60%) for those who reported that they were not friendly the Chi -square result was also significant, $p < 0.05$.

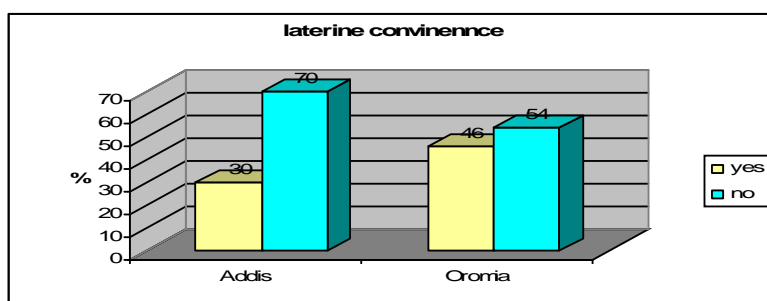


Figure 13: Latrine Convenience as per the respondents rating Addis Ababa and Oromia, 2008

This data is supported by the qualitative data. For example, the FGD teacher and student participants indicated that dirty, insufficient and insecure toilet facilities are a serious issue for the school community and particularly for girls. In many cases the toilets are not there and or are not functional. There is no access to water, and in fact the students are asked to fetch water from

the river and bring to school to clean the toilets. There are no hand washing facilities. Girls asked in the discussion said

"we have to Waite till we go back home it is not good to use this dirty toilet".

Most schools lack appropriate washing facilities due to lack of maintenance on available water pipes and few water points and in few schools there is no water at all. School waste collecting garbage and waste disposal systems are not sufficient. In some areas it is not in place at all. Some schools use baskets and pit holes as dry waste disposal system but the maintenance, replacement and management seem to be very difficult. These unfriendly school environments discourage girls from coming to school when they have their period. Most girls strongly support the idea that girls' menstruation and the school environment unfriendliness affect their school performance and attendance. In the key informant interview this condition was raised and discussed and the Jimma zone respondent said that

"This problem is well recognized by the zonal and woreda education offices .this was given a high priority and we have even discussed about it. I believe this is one of the factors for school drop outs and from the point of gender equity as well. toilets should be separate for girls and boys. It is obvious most of the girls don't want to go there and use the toilet because there is no privacy and are not secured. The parent teacher association has to work with the school administration to minimize the problem"

"It is the woreda administration who have full mandate to allocate the yearly budget as per the priority. so if the schools have to be constructed the toilet and other sanitation facilities should be given due consideration" second key informant Jimma Zone

In association with the above fact the study showed that of girls who responded to the question 78 % girls missed class from 1-7 days in the last three months for different reasons and one of the major reason being the toilet and inconvenient and unfriendly school sanitation .Most schools lack appropriate water points and washing facilities due to lack of maintenance or available water pipes and in many of rural schools there is no water at all. School waste collecting garbage and waste disposal systems are not sufficient. In some areas it is not in place at all. Some schools use baskets and pit holes as dry waste disposal system but the maintenance, replacement and management seem to be very difficult.

q) Psychological, Social and educational Effect of Menstruation

The onset of menstruation amongst girls is a factor that greatly impacts their psychological and emotional conditions including their education. This natural onset affects their school performance force them to be absent repeatedly from school which has a direct impact on their academic achievement and rate of transfer to the next level of education and number of years of study.

Most girls experienced first time menstruation with surprise or panic. Most of the girls do not have prior information about the onset and nature of menstruation. They expected menstruation after the age of 15 years but feel wrong when it start at the age of 10 or 11 years. The FGD participant students enlighten that they recognized first time menstruation with unhealthy feeling including abdominal pain, back pain, fear, shame or shock.

"To start with I don't know any thing about it. I was in school and feel that I have to go to the toilet. I have asked my friend to accompany me. When I stand up I saw I was soiled with the

blood. I have run away from school and went home. I have started to cry. I was too afraid to tell any one, but later I told my mother to take me to a clinic as I thought it was some kind of illness" 13 year old elementary school student

Another 14 year old FGD participant girl also said

"When you first see your period it is very shocking and stressful. It is disturbing"

Since many parents some have the misconception that when girls starting menstruating it means they have started sexual intercourse. Most parents/mothers were married very early and their first experience of their period was after their first sexual experience and not from menstruation. Other women became pregnant during their first cycle and never experience a period until after their first pregnancy.

"One day my daughter came from school, she was bleeding, I lost my temper, and I repeatedly asked her what she committed in the school. I suspected she had sex, I punished her. My neighbor, a teacher came in and she told me this is her first menstruation, I didn't want to hear her, I know when a young girl bleeds, it is all what we have passed through"

A mother quoted in one FGD

Parents usually recognize girl's menstruation after a while but most of the family members do not have particular response for girl's first time menstruation. In most areas, girls do not inform family members about the initiation of menstruation unless they seek financial, psychological or social support.

Most urban and few rural communities took menstruation as a natural course but significant proportion of rural community perceive or link starting menstruation with sexual initiation. In some rural area for example, it is believed that virgin girl do not have menstruation at all, she only start menstruation when she start sexual intercourse or married. The negative attitude is the linkage created between menstruation and sex which means sex before marriage is taboo and unacceptable by the community.

Parents agreed on the gradual change on attitude of community members on girls started menstruation. They think this because they are not educated and don't have appropriate awareness and exposure for information regarding, puberty body change and menstruation is improving relatively.

For the question posed for FGD group in Limmu, what do you do if you need to go to the toilet when you are having your period?, One student participant Limmu from said

"We don't come to school if the flow is heavy. If we are in class we will take a permission to go home". The other participant also said "No! we don't go there we don't want to go there!!"

In some urban schools there are separate toilets rooms available for girls and boys but the biggest problem is these toilets share common wall. Girls are not comfortable to use them due to poor sanitation and mainly fearing boys' abuse.

"The toilets are not girl friendly. When a girl wants to go to the toilet she goes with her female friend fearing boy's verbal abuse and possibly sexual abuse." One teacher explained

In most of the schools toilets are not girl friendly, either they are not clean or have broken doors. In few rural schools boys and girls share same toilet in other cases the existing toilets are not enough compared to the number of students.

Girls also think that school toilets are not friendly and conducive, during menstruation. They feel uncomfortable to go to the toilet when they are on their period. Girls would like to have separate toilet far from boys' toilet; clean with doors. They also wish to have appropriate hand washing facilities.

Most schools lack appropriate washing facilities due to lack of maintenance on available water pipes and few water points and in few schools there is no water at all.

r) Drop out rate

School drop-out rate for girls is very significant in rural schools especially when we see higher grades. But it is not directly ascribed to the problem in relation to menstruation only and which this study can not provide concrete evidence as there are no documented data in the schools. Menstruation can be one of the reasons for the girls drop out rate, but it can also be due to different confounding factors which need further research. Teachers and woreda education bureau heads including the school administration believe that menstruation can be one of the reasons for the girls drop out; the problem is it is not evidently and ear markedly documented as this matter is not subject for open discussion. Girls usually give other reasons to go home or stay out of class.

The key informant from Oromia regional education bureau said " The drop out and the repeaters number of girls is higher than the boys; but it will be difficult to associate this condition to the problem of menstruation. They may have other problems as well".

s) The need to support Girls during Puberty and Menstruation

As indicated in this study finding Girls on average start menstruation at age of 13.7 ± 1.2 yrs and the age can even be as lower as 9 (though it may have its own medical implications). The fact that this transition occurred at a very early age and its impact on girls' biological and physiological changes during puberty makes it very important to give appropriate care and support for girls at this age. The magnitude of the need is well recognized by girls, teachers and parents. The main factors determining the extent of positive or negative impact on girls depends up on access to information, life skill and opportunity to deal with the issues including the support from their parents, teachers and the community.

t) Teachers Support and Role

"In school environment girls prefer to discuss with us. Male teachers are not preferred for discussion but these days younger male teachers have started to discuss with girls about puberty. We encourage male teachers' involvement because I think it is the role of both male and female teachers to support boys and girls at school" said one female teacher in Addis Ababa

In the key informant interview it was asked as to how the degree of participation of female and male teachers seen in the level of support and assistance they give to girls the Addis Ababa key interview participant said

" I don't like this question to have a sense of gender split. it depends on the individual perception and it also depend on the student's approach and closeness to male and female teachers as well. If the girl wants to talk about it openly I don't think there will be any one who doesn't want to help

When asked if they are given education on puberty menstruation and personal hygiene and if they discuss these issues with their teachers the Wolliso students said

"We don't learn much about it and we don't discuss about it with our teachers. If we are sick or have pain and need permission to go home we will say we are not feeling well or we are sick"

All students who were involved in the FGD share the same idea.

Teachers were asked if they can identify and tell girls on their period days when they teach in class and they say that through experience that they can identify girls on menstruation

"They will be different from other days, they are not active and some times they seem to be depressed, they don't want to stand up or be asked. we can see it from their face that they are in problem" Agaro teacher

all teachers participated in the FGD Teachers believe in the importance of teaching students particularly girls on life skill at younger age on reproductive health, puberty and body changes for better health, growth and development of children. In addition they point out that induction of this kind of awareness and knowledge will help girls to be empowered and more self assertive when they grow up.

They also believe there is a need to intensify girls support on reproductive health and related issues which have direct effect on the school attendance and performance. Currently, schools

recognized the need to teach youth reproductive health and feminine hygiene and all schools established school clubs called “girls club” where most assistance for girls coming from.

The school curriculum introduced reproductive health and body growth, particularly in 4th and 6th grade science courses and 8th grade biology after curriculum revision done before 6 years. Teachers and people at a higher managerial position feel that it is not yet dealt with more depth to bring the intended awareness and knowledge so that students can be responsive to the new conditions and challenges they encounter.

When asked on the teaching material availability on puberty and hygiene one of the key informants responded that

"No we don't have a stand alone guideline or teaching material which address the matter in depth on puberty and issues associated with it. But it is given and integrated in the science and biology subjects" Oromia regional bureau key informant

Teachers feel that talking to girls about puberty and its management should normally and primarily be the role of parents which should be backed by teachers as well as community., but because most parents cannot discuss the matter due to lack of information communication skills and education, Teachers feel that they have relative advantage than parents to teach girls on puberty related issues and how to encourage open discussion and break the cultural taboo which is the critical problem

Almost all key informant respondents agreed on the resource limitation they have and the only way out is for the community to participate in what ever possible way to alleviate this critical

problem. As a strategy they have sited fund raising and community mobilization programs to be helpful to leverage fund to address the problem of resource limitation that they have.

One of the challenges teachers identified during the discussion was lack of separate guideline or teaching material to teach girls and boys about puberty except school curriculum books for 4th and 6th grade science and 8th grade biology. There are some NGOs like Save the Children, Family guidance association and Ethiopian Red Cross society providing some education materials for reproductive health, HIV/AIDS and family planning educations.

Teachers suggested that it would be very helpful if life skill on puberty and other relevant topics incorporated in the curriculum and given as independent subject to minimize the oversight and to sustain the information transfer. life skill and other issues like puberty menstrual management and RH/HIV/AIDS information are given mainly through clubs undertaken by volunteer teachers and students.

u) Parents Support and Role

It appears girls' knowledge levels and understandings of puberty, menstruation and reproductive health are very low. They do not have prior information on puberty and menstruation. The girls have to address how to deal with problems with limited information and adapt by trial and error. As reported earlier many girls are not even comfortable discussing the issue.

Parents in general feel that they are incapable of teaching the girls about sexual maturation and menstruation, fathers because they feel it is a female task and mothers because this is a taboo discussing these things with children and culturally in correct, mothers prefer to leave it to

teachers to discuss this issue with girls. but as shown in the earlier analysis girls report not feeling comfortable talking to teachers.

Being in this kind of none supportive environment the girls are left to collect scanty information on their own or from equally uninformed friends. This leaves girls rudderless during that critical time to guide them selves to enter the new chapter of their life, womanhood. The respondents also indicated that they do not get any special psychological or other material support from their parents when they first experience their period. They don't even have separate room to have privacy to change or pass the pain or discomfort. Some times if the mother is suspicious of the situation she will provide her food or some hot staff to drink, but as seen in some of the interviews sometimes the attention is negative rather than positive.

In the focus group discussion almost all parents admitted that they did not do much effort to encourage parent - daughter discussion or family discussion on puberty related issue. They think this because they are not educated and don't have appropriate awareness and exposure for information regarding, puberty body change and menstruation. But the parents did think that there a gradual change in the community perception about puberty and menstruation.

v) The need for policy support to assist girls

To increase school enrollment rates with special emphasis to gender equity is one of the primary strategies for the Ethiopian education system. Ethiopia is one of the signatories of the millennium development goals to ensure equitable universal education by 2015. There is still a huge challenge in the retention of girl students and achieve their successful school completion as compared to their male counter parts. As discussed in the key informant interview with the

regional education bureau heads it is evident that main focus of education system is mainly on Policy framework, educational decentralization, access, equity, quality and efficiency. It is also emphasized that improvement of educational quality and expand access to education with special emphasis on primary education in rural and undeserved areas, as well as the promotion of girls' education. In this regard the education bureau and the school administrations have put into place a variety of strategies to increase girls' participation and promotion rates as much as possible.

But on the ground there are still huge challenges and resource limitations to achieve a "quality" education system and favorable school environment .Excellence in education system is not only the teaching and learning process

*"Now a days as per the bureau strategic direction we are trying to create and introduce child friendly and conducive teaching and learning environment. The bureau is working on the quality education package which include the school environment and in this regard the it looked in to school facilities, teaching and learning process, enhancing community participation, make sure that students are comfortably learn and stay safely in the school, evaluate the students performance and assist them as per the need they have to be supported". **Key informant Addis Ababa education bureau***

Again one of the questions posed for the interview was the need to give students life skill education and if the education curriculum has incorporated important topics so that it can be given as a subject. Below is typical of the attitudes given.

"This kind of issues are given as information and included in the teaching subjects as introduction to trigger questions from the students. It only give them some idea to let them

research and read about it in more depth. the life skill issues are usually dalet with as co curricular subject and it depends on the individual teacher creativity and innovative thinking which also differ from individual to individual and school to school." Key informant Addis Ababa education bureau

It is evident that despite all the progress made to improve girls education there is a huge oversight to address the special needs of girls in the school setting. Entering the puberty age and the onset of menstruation will inevitably have an impact on girls' access to education. For girls who are able to continue attending and participating in school, the widespread reality of poor sanitary facilities, unawareness and minimal focus about menstruating girls' needs and experiences, can mean that the schooling experience for any girl passing in this natural phenomena can be far from a positive one.

The key informant asked about puberty education and menstrual management education given for the girls he said,

"Actually the teachers themselves have a problem to address this issue. they themselves are not mentally changed. they can not discuss this issue as open and as transparent as it should be. the subject also is not addressed in depth to bring the necessary assertiveness and perception in the students" Ginchi woreda education bureau head

When asked about school latrines and sanitation in general and in relation to girl students in particular

"We are trying to include this issue in our yearly plan, but we still could not achieve the requirements on this particular issue. the big limitation we have is resource and material

*shortage. we are trying to construct separate latrines for female students as this can be one of the major obstacles for girls to come to school" **Limmu woreda education bureau head***

The Oromia education bureau key informant said

"We know this is a very big problem but this is mainly associated with the resource capacity that the bureau has. This is something that the regional zonal and woreda education office has to do in coordination. Mainly this is directly the work of the woreda education bureau. they are the ones who allocate the budget as per need and priority. We know the toilet conditions and school sanitation particularly in most of the rural schools are very critically grave. The school administrations have to work with the community to improve this situation"

As seen in the quantitative results girls miss class 1-3 days on the average because of their periods. There was a question to explore what kind of support and assistance they get to catch up the missed classes and

*"To help female students we have tutorial classes which is given after the daily school schedule. this program needs to have the commitment of the teachers to see and verify the area of need and subject that the girls need to have support." **Wolisso woreda Education bureau head***

IX. 4. Discussion

This study tries to explore the level of knowledge, attitude and practice of girls at menarche and challenges associated with it. The study also included qualitative primary data focus group discussions with parents, as primary care takers of the girls, and teachers to understand their level of knowledge, attitude and perception about puberty and menstruation. In this study, woreda, zonal and regional education bureau heads were also included as primary key

informants to see the policy support and guidelines to undertake the necessary assistance with special focus on the need of the girls. The qualitative portion of this research tried to understand the underlying factors that will provide additional relevant information to highlight the critical need and address adolescent girls' health and well-being, with a particular emphasis on the inter connection between young girls in puberty age, menstrual management and education.

Puberty is a period during which the onset of sexual maturity occurs. Universally it is believed that it usually takes place between the ages of 10 and 15 in both sexes but sometimes occurs as early as 7 or 8 years of age in females.(15) The age at menarche is varied as it is being physiological phenomenon and affected by interaction between different factors such as genetic, nutrition and socio-economic status(16). Studies done in India showed that the age of menarche for Iruliga women varies from 11 to 18 years. The maximum Percentage of Iruliga women menstruate at the age of 12 (38.0%) and 13 (32.0%) years. The mean age at menarche has been found to be 13.93 ± 1.6 years (12) This study also confirmed that the age of menarche for the interviewed menstruating girls starts as early as 9. The mean age from the total samples was 13.7 ± 1.2 yrs, median being 13 and the mode 13.

Puberty and adolescence can be challenging times for any girls. Although it may occur at different ages for different girls, adolescent girlhood is always a critical time of identity formation and a period of transition from childhood to womanhood. From references, literature and available health and education reports done in other countries, it appears that in developing countries, Asia and sub-Saharan Africa, girls' knowledge levels and understandings of puberty, menstruation and reproductive health are generally very low. As confirmed in this study in almost all cases, 'menarche' is perceived as shameful if occurring in unmarried girls due to

beliefs that its onset is somehow linked to initiations of sexual activities. Most of the girls in the study concur with the idea that menstruation is not a topic for discussion it is some thing that the girl has to deal very quietly and privately. Most of them say that menstruation is a taboo subject even within their own families. They feel most of the time unable to discuss menstrual issues with any adult or family member including their mothers and fathers. Most of the respondents say they prefer to talk to their peers and some to their sisters. This situation on the other hand put all the matter to be shouldered by the girl and consequently gave the right to the families, schools and communities to ignore the situation. In the study under taken by Jackie Kirk and Marni Sommer, they found out that, menstruation is still frequently perceived in a negative light, with little research conducted on healthy menstruation in 'normal women(17).

The impact of girls' biological and physiological changes during puberty on girls' life is well recognized by girls, teachers and parents even though it is not very well preferred for discussion. The main factors determining the magnitude of impact on girls' knowledge attitude and practice are access to appropriate information, life skill training and opportunity to deal with the issues with full awareness including the support from their parents, teacher and the community.

The result in this study vividly showed that almost all girls interviewed don't properly identify the fertile days of the women in the menstrual cycle. These knowledge gaps indicate another dimension of problem faced by young girls as unwanted pregnancies and other consequences associated with it.

As part of a multi-country study of sexual maturation financed by the Rockefeller Foundation, the Forum of African Women Educationalists, Uganda (FAWE U) conducted extensive research

with girls and their families in rural communities of Uganda¹⁸. They found that along with lack of knowledge and understanding about menstruation amongst girls themselves, other members of the community, including the male members of their families, were completely uninformed as well.

similar result was revealed in the quantitative study of this report on the response they made on Self assessment about their own Knowledge about changes related with puberty indicated that almost half of respondents who have attempted to answer the question were in poor or fair category. Interestingly this finding didn't show statistically significant difference on the level of knowledge for urban and rural girls. This very well indicates that the information education and awareness creation in the schools are very low across the board.

As per the qualitative and the quantitative results of this study most girls think period days are not like other ordinary days, they say that they are less confident during menstruation; they feel insecure and avoid physical activity including active class participation. This attitude can be attributed to less exposure to information and very minimal awareness and life skills that are related with puberty and menstruation and the cultural influence to accept menstruation as something abnormal. In the similar study done in Kenya on the impact of feminine hygiene on girls participation in education in Kenya also revealed that the girls have little to no access on information about puberty and menstruation. In fact, results from the initial survey show that 4.8% of the girls did not have any sources of information on the subject of menstruation, to the extent of some girls from the FGDs indicating that they were very afraid at their first period, as they thought they were suffering from a deadly illness¹⁹

On the other hand this kind of feelings can occur because of lack of the necessary assistance that they should get from their parents and families. In the study done in Tanzania (13) it indicated that The number of concerns related to menstrual onset as a negative of growing up suggested insufficient guidance, and sources of information.

The school curricula also do not cover the topic of menstruation and puberty in-depth to give girls the required knowledge and awareness and minimize the negative perception that girls have about their period. Studies done in other countries have also point out that school curricula typically do not cover the topic of menstruation and puberty in a very girl friendly way, and so do not help girls to understand the changes in their maturing bodies. An example is provided by the government schools attended by girls in suburban slums of Mumbai, India. The biology textbooks contain sexless bodies and make no reference to menstruation or reproductive health, leaving girls - and boys - ignorant about the topic (1)

The unfriendly school toilet facilities and the quality and kind of sanitary materials girls use may create discomfort for girls in the classroom which is limiting factors for girls to fully participate in the class. It was markedly pointed out in the discussion that girls hesitate or refuse to stand up to answer questions or go in front of the class or participate in the sport activities during their menstruation due to fear of having stained their dresses. From a very practical perspective, girls who lack adequate sanitary materials may miss school each month during their period. If girls attend schools which – as many do - lack adequate latrines and water supplies for girls to comfortably change sanitary pads and wash themselves in privacy, they may be unable to remain comfortably in class during their menstrual cycle. (1) In a study done in southern Sudan, for example, the lack of sanitary protection during menstruation is often mentioned as a barrier to girls' regular attendance in school

The school sanitation and conditions of school latrines are the major problem cited in this study as well. Teachers and students view school latrines to be unsafe and inappropriate by any standard. Most of the school latrines are very dirty and not geographically separated from the boys' latrines. The FGD participants unequivocally suggested for an urgent action to be taken by school administrations and woreda and regional education bureaus and to give due consideration and prioritization to alleviate this critical problem

. This finding is also supported by the study done in Tanzania saying Newsletters and reports from African women's education groups and non-governmental (organizations (NGOs) across sub-Saharan Africa report on the lack of latrines and clean water supplies on school grounds; the unaffordable nature of sanitary materials (such as modern pads); the likelihood that school girls are absent 3–4 days per month rather than confront managing menses on school grounds and risk embarrassment of a menstrual “leak”; the harassment of school girls by male students who suspect they may be menstruating.((1)

In this study the impact of puberty and menstruation on girls' educational performance was assessed in relation to school attendance and one out of three girls has missed at least 1-3 school days in the last semester. The study has also confirmed that all groups (girls, teachers and parents) strongly support the assumption that the time of puberty and menstruation has sizeable effect on school performance and attendance. This considerable missed class's situation can be associated with multiple reasons as the discomforts and illusions instigated by cultural taboos and misconceptions of menstruation greatly prevail. In addition very limited support for girls to make them know about what is going on in their bodies, inappropriate and unfriendly school sanitation facilities, lack of appropriate sanitary protective materials and most of all lack of skill and know how of menstrual management can be some of the reasons out of many. Increasing

girls' awareness on puberty, body development and general adolescent development will assist them build life skills and competence to cope up with the changes and decisions that they make. In some cases it was also indicated that male teachers and students show insensitivity to the challenges girls face in managing menstruation. Male teachers seem to not give due consideration to the urgent need that the girl might have. This is also another area to be focused on to give appropriate skill for male teachers to deal with the issue accordingly. Strategies to engage male teachers, young boys and girls and the school community in various ways will help expand their perception about their growth and physiological changes and can initiate better perception and acceptance of this new, but natural physiological and psychological transition. It is crucial to put on necessary and important information about puberty and menstruation in the teaching curriculum. This will help avoid the oversight and get focus in addressing the subject in depth to assist girls to gain basic knowledge and awareness.

Another big gap seen in this study is that in almost all schools there are no forum for parents to be involved in youth reproductive health discussion and get the chance to know the care needed for their daughters during puberty. This gap can be filled by the teacher and parent association committee in all schools.

Girls School enrollment and retention seem not to be in rationally acceptable proportion especially when we go to higher grades. Even though this study can not justify the reason for girls drop out rate as drops in girls' participation can be attributed to multiple factors, it at least try to shade light that there is still big concern of the disparity between boys and girls drop-out rate. In the in-depth interview conducted with the woreda zonal and regional education offices the problem is well recognized and underscored. This problem is not unique for Ethiopia but in

studies done In sub-Saharan Africa, adolescent girls' participation in school is generally very poor (6). Even in contexts where gender parity is achieved in the early grades, by late primary school (Grades 4 or 5) the numbers of girls in school has dropped significantly. As indicated in the Ethiopia Education statistics Annual abstract (3) the number of female students is gradually dropping in the secondary and tertiary education level. This can be an indication for the policy environment to focus on the facilitation of the teaching and learning process together in creation of suitable and comfortable school environment to bridge the gaps seen and enhance learning achievement and academic qualifications of girls.

XII) Limitation of the study

Most of the limitations in this study are inherited to the design; they are all common across all cross-sectional surveys. Primarily as a survey, this study has no ability to establish any cause and effect relationships among variables. Hence, all results in this report should not be interpreted as cause and effect relations, any intention to establish cause and effect relation needs a further longitudinal cohort study to examine associations of exposure and outcome variables to give more concrete evidence.

The study was done among girls in 4th and 5th in selected government schools which limit the study, and the result of the data shall not be generalized to all girls in Addis Ababa or Oromia.

As there are very limited amount of studies done on puberty and /or menstruation in Ethiopia, extensive part of the literature review was taken from what was documented in the area of this research topic in other countries.

XIII. Conclusion

In conclusion, this study has elucidated lack of knowledge and appropriate information on puberty and menstruation, absence of girls friendly and conducive sanitation facilities in the school and appropriate protective sanitary materials are major problems associated with puberty and menstruation and the causes for interrupted school days. This study has elucidated the need to link the education system with necessary life skill trainings on health education reproductive health and puberty education to enhance the knowledge and informed practice for girls who are transiting from child hood to adulthood.

The poor school sanitation and very bad latrines are one of the major causes for school absenteeism for girls

Male and female elementary school teachers should be well engaged in assisting girls during the menstruation time. They should also have good counseling skill and Know how about puberty to give necessary assistance.

It is also apparent that it is high time for the school administration and higher level decision makers to recognize the need to prioritize school sanitation and availing appropriate sanitation facilities with special focus for girls in particular.

This study makes it obvious that multi-sectoral approaches and networking among are needed to address puberty and menstrual challenges and its consequences for girls that impact their education. In service education programs are required for teachers and education authorities in order to appreciate the problem and give the required assistance in counseling and support for girls in puberty age.

Parents and teachers can play a major role in facilitating transparent discussion and giving the necessary assistance and counseling for girls

It is becoming obvious that multi-sectoral approaches are needed to address menstruation challenges and its consequences for girls. In service education programs are required for teachers and education authorities in order to appreciate the problem and give the required assistance for girls in the school.

XIV. Recommendations

1. This study has shaded light on the magnitude, cause and effect of problems associated with puberty and menstruation; it recommend a parent, girls and school based integrated program that involves: parents girls, existing clubs like girls clubs and teachers in this. Similarly, the Health Extension program can be used to promote and address girls' puberty and menstruation related issues at the house level.

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2. There is a need to focus and recognize the level of knowledge attitude and practice of pubescent girls and their perception about their maturity, puberty, menstruation and personal hygiene to understand gap and design doable strategy which can assist girls get appropriate information and guidance to cope up with the biological and psychological transition during puberty.

3. Providing girls training on puberty and feminine hygiene can lower absenteeism and can encourage girls to be self assertive and confident enough to come to school.

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4. There is lack of puberty educational material in lower grades (4th and 5th), it is a paramount importance that teaching young students and in particular girls on psychological, physiological, puberty menstruation and body changes. Therefore there should be periodic capacity building

trainings for the teachers and there should also be necessary teaching materials available in the schools.

5. The co-curricular subjects can be easily integrated in the main subjects given in the curriculum

This research finding can be a wake up call for the education system to revisit and identify the missing link between academic and life skill education for students. The teaching curriculum should incorporate important life skill issues so that there will not be an oversight in dealing with them.

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6. Multi-channel communication approach that could address parents: Teachers and the

students should be in place. This will increase the involvement of teachers (male and female) parents and the community at large. School clubs, parent teacher associations and other community forums can play a pivotal role in enhancing and promoting open communication and community dialog on puberty and related issues.

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7. Girls may also face additional constraints associated with puberty which are barriers for girls

related to menstruation. Sanitary pads are important for girls if affordable /or appropriate guide should be given to girls as to how and what to use as a sanitary protection to get better protection and enhance their confidence in school participation and minimize absenteeism.

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8. The school latrines and its sanitation in almost all schools are in the worst condition that no

one can ever imagine. It seems that the school administrations and the system are not focusing on the problem. Girls are intimidated by the situation and it is one of the reasons that they report for their being absent during their period. Constructing geographically separated and improved latrines should be a priority to alleviate the problem. Having an appropriate sanitation

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facilities could also serve to improve other aspects of health conditions as well.

9. Sensitization programs should be designed at a community level to break the taboos towards menstruation. This school support structure and the school management can play a pivotal role in bringing parents and other community members forward to assist and support girls coping up with challenges they face from physiological to social encounters during their pubertal transition.

10. Net working and collaboration among Ministerial offices (MOH, MOE, Rural development agencies and Other partners, NGO, CBO etc) is highly essential

11. This study is only the tip of the iceberg, further rigorous research on the area is highly recommended.

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~~Conclusion and Recommendations~~

~~Conclusion~~

~~It is becoming obvious that multi-sectoral approaches are needed to address menstruation Challenges and its consequences for girls to improve and enhance girl's confidence, to adjust appropriately to puberty and improve their education performance. In service training programs are required for teachers and education authorities in order to appreciate the problem and give the required assistance for girls in the school. Appropriate Sensitization programs should be designed at a community level to break the taboos towards menstruation. This study has tried to elucidate the need to link the education system with necessary life skill trainings on health education reproductive health and puberty education to enhance the knowledge and informed practice for girls who are transiting from child hood to womanhood.~~

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~~The Knowledge, Attitude and practice of Puberty and feminine hygiene among elementary school girls in Addis Ababa and selected districts of Oromia region and its impact on their school attendance~~

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By

Yeshiemeabet G/Giorgis

ACIPH-UoG /071/08

Research report ZERO DRAFT for comment

Advisors

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Date 02/06/2009

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Acronyms

~~Abstract~~

~~Background:~~ ~~Puberty is accompanied by physical, psychological and emotional changes which need a positive out look to ensure reproductive and parenting success. Puberty is mainly associated with brain maturation and physical growth. This process manifests a complex endocrinology changes that lead to sexual maturation and reproductive capacity. Puberty also triggers emotional cognitive and behavioural change. Puberty and adolescence can be challenging times for any girl although it may occur at different ages for different girls.~~

~~Objective:~~ ~~The aim of this paper is to examine and summarize the findings of the primary baseline survey conducted by Save the Children USA on the Knowledge, Attitude and practice of Puberty and feminine hygiene among elementary school girls and its impact on their school attendance and participation in Addis Ababa and selected districts of Oromia region~~

~~Method:~~ ~~Primary Qualitative data analysis and a cross sectional secondary quantitative data analysis is used to elucidate current status of 10-14 years old girls who have started to menstruate. 347 girls from both urban and rural settings were purposely selected from the primary study of 800 students conducted in 2008. Quantitative data was analysed using standard statistical programs. All instruments were pre tested prior to their implementation by trained interviewers or facilitators.~~

~~Major findings:~~ ~~Although 69% rate their knowledge of menstruation as good or better, 52% strongly agree that they want to know more about puberty and period management . Few girls in the study had access to commercial protection. The rate was 38% in urban areas compared to 8% in the rural areas. Over a third reported missing classes because of their period in the last 3 months. The median number of days missed is 3.2 days. Rural girls~~

~~were or were less likely to miss school. The percentage preference to stay home during menstruation is greater for girls in rural (31%) than the urban school girls (18 %). Girls were less likely to report missing school when they were self-confident or when the latrines were convenient. Over half reported that they were not . In the qualitative interviews, girls reported more problems with the latrines and reported seldom using.~~

~~Findings of the qualitative study support findings from the quantitative study that menstruation has a negative effect on girls access to school due at least in part to sanitation issues, latrines and quality of materials to protect them during menstruation.~~

~~Conclusions: It is becoming obvious that multi-sectoral approaches are needed to address menstruation Challenges and its consequences for girls to improve and enhance girl's confidence, to adjust appropriately to puberty and improve their education performance In service training programs are required for teachers and education authorities in order to appreciate the problem and give the required assistance for girls in the school. Appropriate Sensitization programs should be designed at a community level to break the taboos towards menstruation. This study has tried to elucidate the need to link the education system with necessary life skill trainings on health education reproductive health and puberty education to enhance the knowledge and informed practice for girls who are transiting from child hood to womanhood.~~

~~I~~

~~INTRODUCTION~~

~~Background~~

~~Puberty is accompanied by physical, psychological and emotional changes which need a positive out look to ensure reproductive and parenting success. Puberty is mainly associated with~~

~~brain maturation and physical growth. This process manifests a complex endocrinology changes that lead to sexual maturation and reproductive capacity. Puberty also triggers emotional cognitive and behavioural change. Puberty and adolescence can be challenging times for any girl although it may occur at different ages for different girls. Adolescent girlhood is always a critical time of identity formation and a period of transition from childhood to womanhood. In most societies, menarche is an indication of a girls' developing sexuality.²⁰~~

~~The World health Organization (WHO) has defined adolescence as the age of 10 to 19 years.~~

~~Puberty is characterized by physical, psychological and social change transformation and maturation that takes place during this period. It is also called as period of stress and storm, a period when society sends mixed signals to its youngsters which results in confusion, frustration, despair and risk taking behavior. The inconvenience of menstruation in schools without appropriate sanitation can just be one more reason for girls to stay home. Adolescents may be reluctant to ask for help from adults in their families, communities, or in professional settings. Girls, in particular, are often kept from learning about sexuality and health issues because of cultural and religious beliefs²¹~~

~~The onset of menstruation amongst girls is a factor that greatly impacts the education of the girl child in rural Ethiopia. This natural onset affects their school performance force them to be absent repeatedly from school which has a direct impact on their academic achievement and rate of transfer to the next level of education and number of years of study.~~

~~Throughout sub-Saharan Africa, schoolgirls can only empathize. In a region where poverty, tradition and ignorance deprive an estimated 24 million girls even of an elementary school education, the lack of school toilets and water is one of many obstacles to girls' attendance,~~

~~and until recently was considered unfit for discussion. In some rural communities in the region, menstruation itself is so taboo that girls are prohibited from cooking or even banished to the countryside during their periods. Researchers throughout sub-Saharan Africa have documented that lack of sanitary pads, a clean, girls-only latrine and water for washing hands drives a significant number of girls from school.~~

~~Ethiopia education statistics annual abstract by ministry of education in 2006 indicates primary school (1-8) gross enrollment rate in 2005/06 was 85.8% with big disparity between boys' enrollment (92.9%) and girls (78.5% school). the same is true for the rural school enrollment as well; 1-8, boys 52% and girls 48%, 9-10, boys 63% and girls 36% and 11-12 74% boys and 26% girls. The higher the class grade the lesser is the number of girls retained. The gaps which are observed here can have multiple socio-economical factors which can be reduced through various governmental and civil societies' effort. Again if we look at the availability of sanitation facilities in the schools (water and toilet) availability it is only 40% of all schools have water and only 71.1% of all schools have latrine.²² (mostly with very poor standard not separated for girls and boys pit latrine with wooden or mud floor~~

~~In Ethiopia large number of 10-14 year olds girls is from poor families and communities are forced to transition very quickly from being "children" to taking on more adult roles such as caregiver, spouse, bread winner and parent. These rapid transitions to new social roles can confer increased risks and vulnerabilities that many young people ages 10-14 may not be equipped to manage. Premature school-leaving increased need for contribution to family economy such as unpaid domestic labor, Paid labor, Migration to seek economic opportunity Social isolation, FGM and Early marriage. School dropout in Ethiopia is caused by poverty and food insecurity which, in turn, are linked to large family size. Parents with~~

~~large families do not send all their children to School. usually boys are sent, if children are sent at all. If girls are sent, they are often pulled out of school for different reasons, such as having to help with household chores or work to provide supplemental income. Indirectly, girls may miss school because of inadequate school facilities, such as gender differentiated toilets. Early marriage, abduction, gender-based violence and minimal community support are other factors contributing to girls dropping out of school. Schools may also lack designated staff to counsel and advise girls on how to address or overcome these types of issues. The pressure on girls drop out peaks with the advent of puberty and the problems that accompany maturity, like sexual harassment by male counterparts and other adult men, ever growing responsibilities at home and parental pressure to marry. The United Nations Children's Fund, for example, estimates that one in 10 school-age African girls either skip school during menstruation or drops out entirely because of lack of sanitation.~~

~~To increase girls' enrollment rates improving girls' participation and empowering girls is vital.~~

~~Appropriate health education concerning their periodic development is a paramount importance to improve their knowledge, attitude and practice in this crucial time of change.~~

~~This can be achieved through various measures among the others—providing moral support to girls, assessing the causes and contributing factors of low enrollment rate, retention—and educational performance for girls and to design appropriate action.~~

~~Hence, the study tries to examine how puberty and puberty associated issues affect girls and highlight the relationships and connection between puberty menstrual management and school performance of girls.~~

~~Literature review~~

~~Studies done in other countries on how puberty impact young girls who are transiting to puberty age and their education confirms that it is a great concern mainly to the developing countries no major differences exist at the preschool and early primary school level between boys' and girls' enrollments. However, as children progress through primary school, differences begin to emerge, especially in rural areas~~

~~In sub-Saharan Africa, adolescent girls' participation in school is generally very poor~~

~~(UNICEF 2006). Even in contexts where gender parity is achieved in the early grades, by late primary school (Grades 4 or 5) the numbers of girls in school has dropped significantly. In reviewing education data, enrollment rates are important. Yet, retention and successful completion rates provide a stronger test of Education for All (EFA) achievements and more particularly of achievement of the Millennium Development Goal Number 21. In an International Rescue Committee (Rhodes, Walker and Martor 1998) study of primary schools in Guinea, although girls represented almost 50% of students in early grades, they made up only 34% of those who complete the cycle at Grade six. Similarly, as found by UNICEF/AET (2002) in southern Sudan, enrollment rates of girls in Grade 1 are already very low (an average of only 26% of total enrollment) with a drop to 21% at Grade 8 (an absolute drop of more than 20,000 girls). And in the reconstruction and development of the Somali educational system, gender related disparities are a key concern; only 35 % of the students enrolled in Grade 1 are girls, and this proportion declines with girls making up only 29% of Grade 8 pupils (UNICEF/AET 2002). Such drops in girls' participation can be attributed to multiple factors, sexual maturation, and the subsequent impacts on their educational access and experience.~~

~~Anecdotal evidence from a number of countries suggests that a main reason the onset of menses disrupts schooling are familial expectations that a post-pubescent girl will marry and move to her new husband's home, thereby removing her from her school. UNFPA, UNICEF and WHO (2003) report that parental fears about sexual abuse can mean that for unmarried girl's movement is often restricted after menarche; a reality which can also interfere with schooling. From a very practical perspective, girls who lack adequate sanitary materials may miss school each month during their period. If girls attend schools which—as many do—lack adequate latrines and water supplies for girls to comfortably change sanitary pads and wash themselves in privacy, they may be unable to remain comfortably in class during their menstrual cycle (Kirk 2005). In southern Sudan, for example, the lack of sanitary protection during menstruation is often mentioned as a barrier to girls' regular attendance in school.²³~~

~~Menstruation may seriously affect girls' attendance, attention, and achievement in school in both rural and urban areas. The absence of clean and private sanitation facilities that allow for menstrual hygiene may discourage girls from attending school when they menstruate. In addition, if a girl has no access to protective materials, or if the materials she has are unreliable and cause embarrassment, she may be forced to stay at home while menstruating. This absence of approximately 4 days every 4 weeks may result in the girl missing 10 to 20 percent of her school days. Inevitably, it will be difficult for a girl who misses so much schoolwork to keep up.²⁴~~

~~In rural Peru, a girl who has begun to menstruate is perceived to be different by the community. Girls' self-perception changes dramatically after menarche. They see themselves as women rather than girls. Attitudes intensify adolescent girls' feelings of exclusion and inadequacy~~

~~and lessen their desire to attend school. This strongly suggests that Menarche changes a girl's self-perception and the way she is perceived by her family and the community.~~

~~It was also indicated in this study, that Formal education is not accommodating to menstruating girls. Girls do not have adequate support in school during menstruation. Schools lack bathroom facilities, water, and sanitary supplies. The prospect of sitting for long periods of time and staining their clothes with blood and being noticed and teased by boys and other onlookers makes adolescent girls feel anxious and uneasy. Their psychological discomfort is compounded by physical symptoms such as headaches and fatigue, which may be aggravated by malnutrition and contribute to poor school performance and absenteeism. School rules and regulations make it difficult for girls to attend and participate in school activities during menstruation. The requirements for certain physical exercises do not always correspond to girls' needs. Many teachers (especially male teachers) are not sensitive to the special needs of girls during puberty and are unprepared or choose not to provide the support and guidance girls need. To make the condition even worse menarche signals the time at which girls abandon school. Parents send conflicting messages to their daughters. On one hand, they believe girls should adhere to gender-specific roles and begin to focus more attention on domestic tasks traditionally assigned to women. They reaffirm existing perceptions that girls don't need to continue their studies.²⁵~~

~~In another study done in Tanzania indicated that a gender gap in girls' education at all levels of the school system continues to exist in Tanzania and across sub-Saharan Africa. One unexplored aspect of this inequity is how the onset of puberty, and menstruation in particular, may be impacting on girls' attendance, participation, and completion of schooling. The lack of affordable menstrual management materials and sufficient water and~~

~~sanitation facilities within school grounds; the social and cultural pressures that arise for a girl as she becomes a young woman within the local society; and the implications of womanhood for a young woman's sexual health, well-being, and continued academic focus. Foundation, the Forum of African Women Educationalists, Uganda (FAWE-U) pragmatic and thoughtful proposal for improving the lives of girls maturing after them, represents the power and importance of the findings. Equally valuable was the effort to place these young women's experiences within the social, economic, and political context of a globalizing world. the study underscore that there are public health and education interventions that could be implemented now to improve young women's chances of remaining in school, and their overall health and well-being.~~²⁶

~~In An Iranian study on 'Effects of puberty health education on 10-14 year-old girls' knowledge, attitude, and behavior' indicate d that reported that A n appropriate educational programs including physical and psychological changes, as well as the appropriate nutrition during puberty, improves female adolescents' knowledge, attitude, and behavior. To give teenage girls the opportunity to enjoy their youth before becoming a mother is necessary to educate them about reproductive health issues.~~²⁷

~~In a comparative assessment study on subjects' knowledge, attitude and practice, concerning puberty health programs done in Iran again underscored that an appropriate health education concerning their periodic development is of importance in community health services. The study confirmed discussion panels to be more effective in puberty health education for Iranian teenage girls.~~²⁸

~~In a study done by FAWE Uganda (Foundation, the Forum of African Women Educationalists, Uganda (FAWE-U), it was clearly indicated that school sanitation and absence of girls~~

friendly environment, absence of provision of sanitary and protective materials by parents or schools—to be one of the very fundamental reasons to increase the girls drop-out rate and minimal school participation. For girls who cannot afford to buy washing soap, regular cleaning of her uniform or school clothes may not be easy. This situation means that for many girls and young women it is preferable to stay at home during menstruation and not to attend school at all. In particular the reports speak to the prevalence of overcrowded and overflowing toilet cubicles currently existing in far too many sub-Saharan African schools. 'Beyond being health hazards, they [unsanitary conditions] are symbolic of the failure of the education system to provide essential facilities to ensure that children, especially girls are not. There are rarely separate cubicles for boys and girls and the cubicles that do exist provide little privacy. While such poor facilities contribute to creating unfriendly school environments for all children, they are particularly so for menstruating girls. UNICEF (2005) estimates that about 1 in 10 school-age African girls do not attend school during menstruation, or drop out at puberty because of the lack of clean and private sanitation facilities in schools. Few schools have any emergency sanitary supplies for girls, and communal toilet facilities are generally very unsuitable for changing sanitary pads given a lack of water, and of sanitary material disposal systems. 29

In Ethiopia large numbers of 10-14 year olds girls is from poor families and communities are forced to transition very quickly from being “children” to taking on more adult roles—such as caregiver, spouse, bread winner and parent. These rapid transitions to new social roles can confer increased risks and vulnerabilities that many young people ages 10-14 may not be equipped to manage. Premature school leaving increased need for contribution to family

~~economy such as unpaid domestic labor, paid labor, migration to seek economic opportunity, Social isolation, FGM, and Early marriage.~~

~~School dropout in Ethiopia is caused by poverty and food insecurity which, in turn, are linked to large family size. Parents with large families do not send all their children to School. Usually boys are sent if children are sent at all. If girls are sent, they are often pulled out of school for different reasons, such as having to help with household chores or work to provide supplemental income. Indirectly, girls may miss school because of inadequate school facilities, such as gender differentiated toilets. Early marriage, abduction, gender-based violence and minimal community support are other factors contributing to girls dropping out of school. Schools may also lack designated staff to counsel and advise girls on how to address or overcome these types of issues. 30~~

~~The emergent issues for girls by age 12 is Sexual maturation, Consolidation of gender norms, Disproportionate care (concern) on domestic work burden, Withdrawal from and/or lack of safety in public space, School leaving and school safety, Loss of peers, Migration for work and Pressure for marriage are some of the predicament facing the girls as they transit to adulthood. Despite their emergent vulnerabilities, 10-14 year olds are frequently neglected in research, policies and programs — they slip through the cracks — no longer eligible for child health programs and not considered by conventional youth, maternal and reproductive health programs. Early intervention may also create new opportunities for effective programming. It may be easier to reach 10-14 year olds — before they leave school, while they live in their home communities and before they migrate. Limited programming experience indicates that 10-14 year olds may be more open, flexible and creative — they are easier to work with before the onset of puberty. And it is reasonable to hypothesize that it may be~~

~~easier to promote the development of positive behaviors rather than change stubborn and entrenched negative ones. Continued education, programs are needed such as: Social and peer support and protection;; Safe places to meet, learn and recreate;; Personal assets/life skills promotion;; Positive health habits/information/services;; and Opportunities for personal and professional development close to home.³⁴~~

~~Another big gap seen at the onset of puberty and menstruation is that, girls are left to cope with psychological and physical effects of sexual maturation on their own as parents, teachers and the community as a whole do not give them support during this time of change. Teachers are overwhelmed with a massive workload and feel too burdened to take on the task of empowering the girls while male teachers have the added obstacle of feeling that it is a role that females only should play. Parents as a whole feel that they are incapable of teaching the girls about sexual maturation and menstruation, fathers because they feel it is a female task and mothers because they feel shy about approaching the topic, preferring to leave it to teachers. While everybody “passes the buck” to someone else, the girl is left to collect scanty information on her own and basically guide herself into womanhood.~~

~~In the same study done by FAWU Uganda gain they found that along with lack of knowledge and understanding about menstruation amongst girls themselves, other members of the community, including the male members of their families, were completely uninformed as well. Fathers, uncles, brothers and male cousins appear to have very little factual information on menstruation. They understand it as a mysterious weakness of women rather than a biological and normal recurring) experience of life for post-pubescent girls and women. This likely serves to reinforce misunderstandings about natural bodily processes, and to perpetuate the stigma that is attached to menstruating women and girls. Girls explain~~

~~that menstruation is a taboo subject even within their own families, describing a ‘culture of silence’ with regard to their menstruation. They feel unable to discuss menstrual issues with their mothers and certainly not with their fathers. Not being able to talk about their experience and having limited information means that menstruation becomes something shameful and something to hide, and is consequently ignored in families, schools and communities (FAWE U 2003)³².~~

~~With these psychological burdens come the added physical burdens upon the girls as some have undergone female circumcision, making menstrual pains exceedingly painful. Furthermore, the girls come from extremely impoverished backgrounds where sanitary pads are truly unaffordable. This leaves the girl to cope as best as she can with improvised pads such as rags, tissue paper, cotton wool or even old newspapers and camel skin. It is then unsurprising that the girl can not concentrate in class nor participate while she is worried that the make-shift pad may fall or that she may stain her clothes. The girl cannot then be fully faulted for preferring to stay home rather than go to school, possibly learn nothing the whole day and yet be embarrassed in front of her male and female classmates.~~

~~However, as this Final Report shows, it is possible to put in workable interventions to enable the girl to feel confident enough to come to school during her period days. When the girls were given training on feminine hygiene issues and were given sanitary towels, the level of absenteeism fell drastically. Therefore, it is possible to allow the girl child to miss no school through simple interventions³³~~

~~General Objectives~~

~~The over all objective of this study is to examine level of knowledge, and attitudes and practice of school girls on issues of puberty and its influence on their school attendance and performance.~~

~~Specific objectives:~~

~~5.To assess the level of knowledge, Attitude, and Practice of girls who have currently passed menarche and started menstruation on puberty, feminine hygiene and sanitation in elementary schools attending grade 4 and 5th girl students.~~

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~~6.To examine the level of knowledge attitude of parents, teachers on puberty and the level of support that the girls get at home and school.~~

~~7.To explore the multi level assistance of different stakeholders to minimize absentees due to menstruation and other problems in relation to puberty.~~

~~8. To identify the knowledge attitude and practice gaps between urban and rural girls and explain the causes behind for the differences.~~

~~Rational of the study~~

~~The rationale of the study are~~

~~(v)To highlight problems seen in the school sanitation which could be major obstacle for the girls to attend school during their period~~

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~~(vi)To assess the level of knowledge attitude and practice of menstruation on puberty, personal hygiene and menstruation of elementary school girls who have passed puberty~~

~~(vii)To asses to what extent the school curriculum incorporate the issue of puberty and changes associated with it and life skill development at early age.~~

~~(viii) To highlight the Evidence from the study and call for more attention and prioritization and decision at all level.~~

METHODOLOGY OF THE STUDY

~~Part of the data for this research comes from the primary baseline survey conducted on pubertal KAP base line Study done in 2008³⁴. As an extension of the primary study, the study took purposive sample of 347 menstruating girls as a study subject. This study applied primary qualitative research and secondary quantitative data analysis extracted from the primary data~~

Qualitative data

~~To triangulate the out come of the base line result (ie, the primary data) this research also included a Purposive qualitative study to compliment the quantitative study using focus group discussion (FGD) and key informant interviews. The qualitative primary data that employed FGD with menstruating girls, parents who have girls at puberty age and who started menstruating and teachers who teach in 4th and 5th grade in the selected schools to assess their knowledge, attitude and support on puberty and feminine hygiene and sanitation issues. In addition key informant interviews were conducted with education bureau heads at regional, zonal and woreda level to explore the existence of policy guideline which assist girl students during puberty and menstruation to minimize absenteeism and girls school drop-outs.~~

~~The focus group discussions were intended to explore how puberty and menstruation affect 10-14 girls and who are in Grade 4 and 5. and it also tries to explore their knowledge, attitude,~~

~~practice, experience and challenges that they are facing at this young age. In addition the study also tried to get a glimpse of sanitation facilities like toilet and water availability to make the school environment girls friendly.~~

~~Five FGDs were conducted with girls (8-10 participants per group), five FGDs with parents and five FGDs with teacher. In total, 49 girls, 39 teachers and 42 parents participated in focus group discussions.~~

~~The discussions were moderated by trained experienced facilitators, based on Focus group discussion guidelines. The students' group discussion was facilitated by female facilitators to enhance open discussion.~~

~~Key Informant Individual interview~~

~~In depth interview was carried out to capture detailed information from woreda zonal and regional bureau to exhaustively assess and discuss relevant issues to this study. Six key informant interview participants from Addis Ababa, education bureau and 3 woreda education bureau heads and 2 zonal education supervisor experts were involved in the process of this study.~~

~~The discussions were conducted based on pre-developed focus group discussion guides.~~

~~Primary Quantitative study Methodology~~

~~The method used for the primary data was a cross sectional survey on assessment of knowledge attitude and practice with girls in all selected schools. The cross sectional survey took a snap shot of socio-economic, demographic, exposure to information and services with other relevant data, at one end and the dependent variables of key puberty knowledge and practices prevalence.~~

~~Study population:~~

~~Girls in 4th and 5th grade and 10 to 14 of age were taken from 90 elementary schools in Addis Ababa and Oromia . The study sites which were considered for this baseline survey were purposefully selected regions namely Addis Ababa, and Oromia , that is, wolliso, Limmu, Agaro, Dendi and Ginchi.~~

~~The sample size used in the primary study was a random sampling method to choose girls in 4th and 5th grade of all target schools. Lists of computer generated random numbers were used to select girls from a sampling frame of a class room registration. 814 girls were selected for the survey and the sampling size was calculated using standard acceptable health research software, EPI info 2000 software using the main study interest variable for the survey which is level of knowledge and practice among pubertal girls. on the following assumptions:~~

- ~~▪ A probability of detecting the real value, confidence interval (CI) is 95%~~
- ~~▪ Power of the study to detect any difference among the groups is 80%~~
- ~~▪ Considering no previous study or data on the level of KAP, the proportion of interest variable is 50%~~
- ~~▪ Expected minimal difference among the cohorts to be detected 10 %~~
- ~~▪ Expected minimal detectable RR 1.2~~
- ~~▪ Expected minimal detectable OR 1.5~~
- ~~▪ Ration among the selected and controls 1:1~~

~~This total sample size taken for the primary data was 814 girls who are in 4th and 5th grade in the study schools.~~

~~primary data analysis: The quantitative data was entered using a template produced by Epi info. The analysis was done by Epiinfo and SPSS 15.~~

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~~Survey Instruments: A structured questionnaire developed by Save the Children was translated into the local language, pre-tested and administered (see Annex) .This questionnaire was administered by trained teacher verbally in the local language.~~

~~Secondary data analysis~~

~~This is a cross-sectional study which took purposive sample of 347 menstruating girls as a study subject from the primary baseline survey.~~

~~The secondary quantitative analysis was done based on appropriate representative sample calculation, using EPI info version 3.2 software and SPSS on the main study interest variable for the study i.e (The level of knowledge and practice among menstruating girls on puberty, feminine hygiene and sanitation) The data was analyzed from those 347 students who responded that they have started menstruating.~~

~~The study focus and analyzes a number of specific questions asked to girls about their most recent Knowledge, Attitude and Practice and experience in their school attendance, sanitation and feminine hygiene and if there is any correlations for urban, and rural settings on school participation and absenteeism~~

~~The secondary data sample size was estimated on the assumption taken on the primary data that~~

~~A probability of detecting the real value , confidence interval (CI) is 95%~~

~~Power of the study to detect any difference among the groups is 80%~~

~~Considering no previous study or data on the level of Knowledge, Attitude and Practice, the proportion of interest variable is 50%~~

~~Expected minimal difference or marginal error 5 %~~

~~10% non response rate~~

~~As part of the analysis the relationship between self-reported school day missed due to menstruation and independent variables such as talking with parents, convenience of school latrines and attitudes such as reported self-confidence were explored using chi-square.~~

~~Ethical considerations~~

~~The study protected the rights of subjects.. It also maintained research integrity through out the process. Due care was taken to ensure that all who participate in this study were involved voluntarily by giving written consent. Each participant was informed about the purpose of the study and was assured that the information obtained from the participants will be kept confidential. In addition, participants were reassured that they can at any time refuse or change their minds on their participation or it is their right not to answer any part of the question if not willing.. Data collectors were also trained on the ground rule of interview and were strictly instructed to maintain the right of the participants~~

~~Limitation of the study~~

~~Most of the limitations in this study are inherited to the design; they are all common across all cross-sectional surveys. Primarily as a survey, this study has no ability to establish any cause and effect relationships among variables. Hence, all results in this report should not be interpreted as cause and effect relations, any intention to establish cause and effect relation needs a further longitudinal study.~~

~~The study was done among girls in selected government schools which limit the study, and the result of the data shall not be generalized to all girls in Addis Ababa or Oromia,~~

~~Socio-demographic profile~~

~~Information on the socio-economic and demographic characteristics of respondents is useful to identify factors that are associated with puberty and onset of menstruation. The study was~~

~~Age * by region~~

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~~In a crude analysis, a large majority 55 %, of all girls lives with both of their parents, the next majority of girls 14.4 % live with their biological mothers, 5.2% live with their biological fathers 7.2% of the girls live either with their grandparents and 7.8% live with other relatives. the remaining percentage is distributed for girls who live alone, live with their siblings or with employer. When compared by region 60% and 40% of t girls interviewed live with both parents in Addis Ababa and Oromia respectively. 13% of girls in Addis Ababa and 14% of girls in Oromia live with their mothers and like wise 3.2% and 6.2% of girls live with their fathers in Addis Ababa and Oromia respectively.~~

		Regions		total
		Addis	Oromia	
Girls With	alone			
	both parents			
	other			
	ther			
	blings			
	and parents			
	ther relatives			
	ers			
	mployer			
total				

~~Live With~~

~~As stated earlier the study subjects are selected from 4th and 5th grade girl students when we further see their age against the grade from age 12-15 , 87.5% falls in grade 4 and 94.2% fall in grade 5.~~

~~FINDINGS OF THE STUDY~~

~~This report summarizes the findings of the primary baseline study. The report attempt to show possible comparisons among urban setting (Addis Ababa) with the rural settings in most cases which happen to show significance difference.~~

~~The FGD study found out that access to, Information on reproductive health, particularly on puberty, feminine hygiene and menstruation are very limited. Aside from general sciences subject given in classes, girls have very limited chance to get information on reproductive health and puberty related issues. They get some scanty information from school mini-~~

~~media (this is applicable to Addis Ababa schools as the rural schools don't have such facilities) and school girls clubs. Girls also indicated that most of the time their source of information comes from their peers. Parents, teachers and other adults have offer very minimal interaction. There are no significant differences in information sources between urban and rural settings. The source of information for urban and rural settings does not have significant difference. In both cases information about puberty body growth and sanitation are very limited.~~

~~The psychological and social stresses that will be triggered during this crucial time, coupled with personal hygiene and menstruation management are among the main influencing factors for girls' school attendance and performance. The main factors determining the magnitude of impact are access to information, skill and opportunity to deal with the issues including the support from their parents, community and teachers. The focus group discussions revealed that most that is 80% of girls strongly support the idea that girls' menstruation and related issues affect their school performance and attendance.~~

~~Among 347 respondents who reported menstruating, 31% rated their knowledge of puberty and menstruation to be poor or fair while 37.8% said have good knowledge. Although 69% rate their knowledge of menstruation as good or better, 52% strongly agree that they want to know more about puberty and period management.~~

~~Further the study also focused on the communication and awareness of puberty, the majority (60.9%) reported that they do not discuss puberty issues with any adult while just over a third (39.1%) reported they do discuss. However, talking to adults was not significantly related to school attendance according to chi square. Lack of findings may be related to the~~

~~fact that parents that well engaged to talking to their children about puberty and menstruation.~~

~~When questioned about who they would be comfortable talking about these issues, relatively few reported that they were comfortable talking to their parents. Less than 3 percent reported they would be comfortable talking to their father. More (32.1%) reported that they would be comfortable talking to their mothers. Generally girls reported that they are most comfortable to talking with their friends (45.7%). Other groups in order of reported comfort are: siblings (14.2%), teachers (5.5%) health workers (1.6%).~~

~~Knowledge of their personal hygiene and keeping themselves clean was also looked at and 58.2% said being clean is face washing, 85% said taking bath and 72.4% said wearing a clean cloth. During menstruation girls keep them selves clean through daily bath, using clean or washed cloth rags as protection, frequently changing pants and dresses. In most areas there is no major problem in getting washing materials like water (they usually fetch water from the river or spring in the rural areas which can make it a bit scarce) and soap at home. When asked on this topic on the FGD~~

~~"My sister told me that I have to wash and be clean and careful if the boys see this thing they will make fun of you" 13 year old FGD participant~~

~~"We wash our body, usually partially. We change the piece of cloth we are using wash them and keep them clean" Agaro Ras Desta elementary school students~~

~~Education on personal hygiene and sanitations is provided in grade 1 to 4 in the curriculum. Though it is given as a subject, the situation seen in practically all schools is very bleak. It seems this issue is taken as a secondary importance to the teaching process. But it is believed that it is in the school that students can learn about sanitation and personal hygiene~~

~~management. the schools should be the appropriate place for most of the children to learn and be instrumental in motivating their families for improved behavior over personal hygiene and cleanliness. It is in their school where they learn and exercise personal hygiene and sanitation so that they can be role models in their families and in the community.~~

~~Self Assessment on knowledge about changes in puberty~~

~~As shown earlier girls rate knowledge as high, but the data indicate that there are major gaps~~

~~Knowledge about common biological and physiological changes related to puberty was identified by a multiple answer question and 76% of 347 respondents identified breast enlargement, 42% body growth and the girl can have developed hip and 39 % identified hair growth under armpit and around face for the boys and genital area, 50.7% of all said there is voice change in boys 79 % recognized that puberty is associated with menarche.~~

~~Knowledge about fertility~~

~~Knowledge regarding the fertile periods during in a fertility cycle was asked and it shows that there is a consistent lack of knowledge and misconception of when the fertile time is during the menstrual cycle. Only 6.4 % of all know the fertile period of females in a monthly cycle. Unfortunate, 30% think that it is just before menstruation that females can get pregnant. this was further analyzed by rural and urban school girls and showed no marked difference. This result showed information and knowledge gap among all girls.~~

~~Information Access on Reproductive Health, Puberty and Menstruation~~

~~The FGD discussion shows that girls have little or no access on information about puberty and menstruation. All teachers agree that the girls have little access to information and awareness to put on necessary knowledge on puberty and menstruation in the school environment, as the subject is only touched upon in schools during Science lessons.~~

~~The psychological and social stresses that will be triggered during this crucial time, coupled with personal hygiene and menstruation management are among the main influencing factors for girls' school attendance and performance. The main factors determining the magnitude of impact are access to information, skill and opportunity to deal with the issues including the support from their parents, community and teachers. Most girls strongly support the idea that girls' menstruation and related issues affect their school performance and attendance~~

~~The only chance for girls and kids in the school to get information on reproductive health and puberty related issues is through school mini-media sessions. They have got information on abstinence no sex before marriage, personal hygiene and menstruation. The other source of information on puberty, menstruation and personal hygiene is through 'girls club' which is available almost in all schools and assist girls through provision of counselling and education about reproductive health subjects~~

~~"Most of the time we get information from 'girls club' in school. The female teachers and other peer girls who are the members of the club support each other and share information on reproductive health, family planning, HIV/AIDS, STI and sometimes even on menstruation."~~
~~Said a girl who were participating on the FGD~~

~~Again the FGDs revealed that they were very afraid at their first period for different reasons mainly because they think it will be taken as the girl was engaged in asexual activity. This is also one of the reasons that the girls say they don't want talk about it with their parents or any one. There is no much support from the families as well~~

~~11 years old wolisso elementary school girl student said "my period started at night while I was asleep. In the morning when I saw I was bleeding I was so afraid and in shock. I just kept quiet and went to school. I told my friends about it but I didn't tell any one from my family~~

because it is not good and scary. It is not usual to tell family about such things. They will be suspicious that I have started some thing bad. Because I am going to school they may think I am staying in the jungle with boys. That I am not a good girl any more and my mother will get angry with me and I don't tell her''.

Another girl from limu elementary school said

"our parents don't discuss things like that we don't discuss any thing over this issue. We are scared to discuss about our period"

Few girls talk to their mother, elder sister, female friends and sometimes elder brothers about how to prepare for first time menstruation experience, how to keep personal hygiene and the relation between menstruation cycle and pregnancy.

"When I had menstruation for the first time it was so difficult to manage. For the first time, I discussed with my female friend at school then to my elder sister. Both assisted me on where I can found the cloth/ pad and how to keep my self clean. My bigger sister gave me soap and clean cloths for the first time after wards I learnt to manage myself. It has been three years since I had my first menstruation and now I am open to discuss with even with my teachers."
14 years old 5th grade girl

When we see the family support on this issue it seems the Addis Ababa parents are more open and exposed to information on puberty and feminine hygiene. One of the Addis Ababa parent FGD participant said

"I usually follow up my child and see her progress in body growth and other changes. we have also passed this time and I don't want my child to suffer and see what I have gone through. The first time when she saw her period she run to me and told me about it. We openly discuss all issues about it"

One of the parents from the Oromia FGD said

"I don't talk about it and they don't tell me either. But I know they are having it. When they are out of the house I will see what they have in their boxes and if by chance they have some pants or cloth material not washed I will wash it for them. We deal with it quietly"

Generally, girls prefer to get information from their female friends, elder sisters, and mothers and sometimes with their female teachers.

Summary of girls' information sources and information challenges (extracted from FGD discussions)

Source of information	Information challenges raised by informants
<p>Source: Girls club, school mini-media, school curriculum, peers</p>	<p>Lack of strong clubs</p> <p>Mini-media educations do not emphasize on girls puberty and menstruation related topics</p> <p>The school curriculum is not sufficiently covering the topic</p> <p>Lack of training and teaching materials on puberty and menstruation</p> <p>Low level of teachers involvement towards assisting girls as teachers explained</p>
<p>Home and surrounding: Discussion with female friends, Sisters, parents</p>	<p>Parents low level of support as teachers explained</p> <p>Low level of family members knowledge on the subject as teachers and parents explained</p> <p>Lack of forums to teachers community parents to</p>

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deal on ways to assist girls

~~Menstruation and its impact on school attendance and class participation~~

~~It was evident from this study that girls would miss school during their period days. In fact, the study found out that lack of appropriate sanitation facilities in the school for girls, lack of adequate and "appropriate" sanitary protection which attributes to limited and restricted movement. Absence of training on period management and feminine hygiene in the education system or in the school can have considerable impact on their school attendance. This is because girls will absent themselves from school if they cannot manage their period.~~

~~School days missed in the last three months~~

		<i>quency</i>	<i>cent</i>	<i>id Percent</i>	<i>nulative Percent</i>
<i>id</i>	<i>one</i>		3	3	3
	1-3 days		2	3	3
	4-7 days				2
	7-14 days				4

	15-21 days				5
	22-28 days				9
	don't know				10
	at		3	10	
sing	tem				
at			10		

References

~~As shown in the above table, 58.% of girls missed classes 1-3 days and 21% missed 4-7 days because of their period. If we further calculate number of class periods missed it will be 6-18 periods in three months time which is quite significant to impact their class attendance and performance. This finding for urban and rural girls has no significant difference.~~

~~It was evident from this study that girls would miss school during their period days. In fact, the study found out that lack of appropriate sanitation facilities in the school for girls, lack of adequate and "appropriate" sanitary protection which attributes to limited and restricted movement. Absence of training on period management and feminine hygiene in the education system or in the school can have considerable impact on their school attendance. Girls will absent themselves from school if they cannot manage their period which can be a reason for them to miss school, interest and less self-confidence which directly reduce their class involvement and interaction. Almost all teachers participated in the FGD think that period~~

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~~days have considerable impact on girls' class participation. They believe that most girls during period/ menstruation have illness, lack of attention less participation.~~

~~A potentially important comment was also made by a male teacher in Limmu who said~~

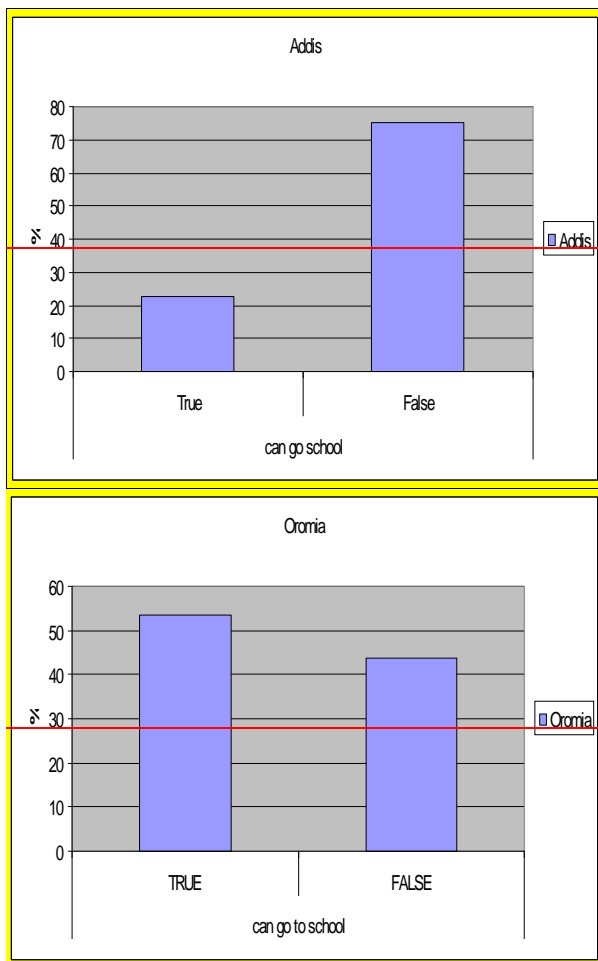
~~"We know when girls are on their period even the intelligent girl will be silent and don't want to move herself from the seat, they don't attend well. When a teacher walks towards her seat, he can simply sense her anxiety and her unspoken pledge not to be asked or to stand up from her eyes"~~

~~A 14 years old student from wolisso also responded for the question asked if period days are difficult for them to participate in class and she said.~~

~~"It is different, when we are on our period we don't want to be asked or stand up to answer questions, we don't want to do physical exercise and we usually stay in the class during sport periods. we don't have full participation, concentration and interest like the other normal days, we are present in body only, we are thinking of if our dresses are solid or stained. It is very shameful, the boys will laugh and ridicule us. There was one girl in another class and one day they saw it on her dress and they are still call her "fire brigade" she is always ashamed of her self and not at all comfortable in the school".~~

~~Feels can go to school during period~~

~~An assessment of attitudes towards going to school, while menstruating was done using true false question and quite substantial percentage (47.8%) of the girls disagree with the statement "Can go to school while menstruating" The majority, 53% of 299 in Oromia and 75% of 44 who responded to this question disagreed about the statement~~



Reasons for missing classes

~~Further the study tried to look in to the main reasons to miss classes during time of menstruation and, quite substantial number of respondents, 60% of 330 said that they fear that they will be ridiculed by school kids if they by any chance have their dresses is soiled with blood, so they quite classes till the flow is minimal and manageable; the next 34.2% of most frequent reason that was responded by of all is the general feeling of sickness and 21.8%~~

~~said they don't want to come because of poor facility conditions in the school and that they don't want to use the school latrine during their period. — This variable was further analyzed for the reason why they say school latrines are not convenient 103 girls from Addis Ababa and 179 from Oromia said they are not girls friendly, 40 girls in Addis and 32 girls from Oromia said they are not convenient~~

~~Prefers to stay at home~~

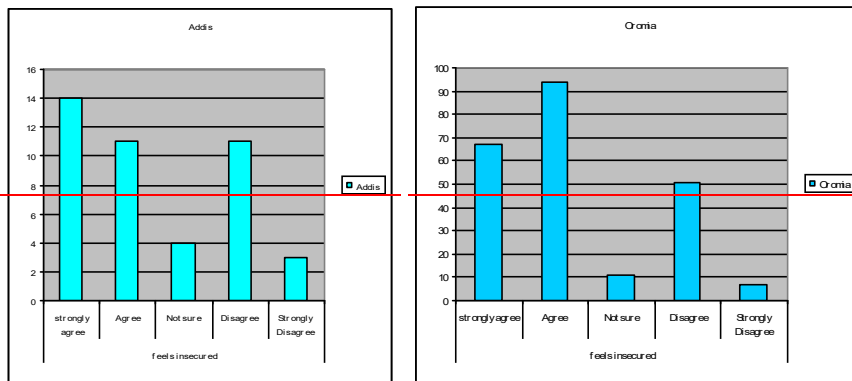
~~Question posed about their attitudes (put in exact words of statement. if they prefer to stay at home while menstruating; this was captured using a five grade likert scale. The un-stratified result shows that those who agree and disagree are almost in equal proportion, 28.2% and 27.6% respectively. A stratified analysis among the regions showed no much statistical difference for the rural and urban school girls.~~

~~Feels less self-confident than during other days~~

~~An assessment of their self-confidence, while menstruating was done using five grade liker scale. The question that was presented to was “I feel less confident during my menstruation period”. overall 74 percent agree about the statement. In un-stratified analysis girls who strongly agree that they are less confident are 37.4%, followed by 35.4% girls who agree only 16.4% disagree about the statement. This was again further analyzed if this relates to being an urban or rural school girl and it showed a significant difference. Girls who disagree that they are less confident are much more likely (76%) to report that they attended school even though menstruating, this compares to 58% for those who reported being less confident.~~

~~— Feels insecure during periods~~

All girls were asked about their attitudes while menstruating; this was captured using a five grade likert scale. The un-stratified result shows that those who strongly agree and agree are (68.2%) and disagree strongly disagree 20.8% which shows a marked difference. the finding was further analyzed by region



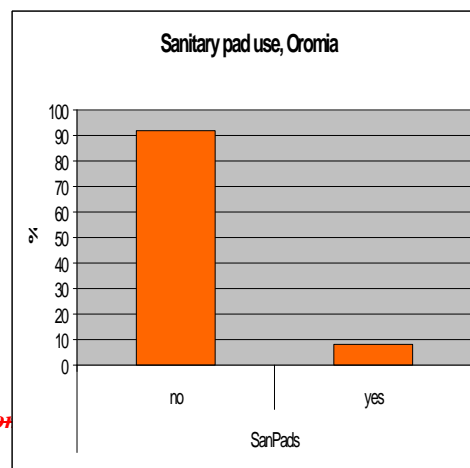
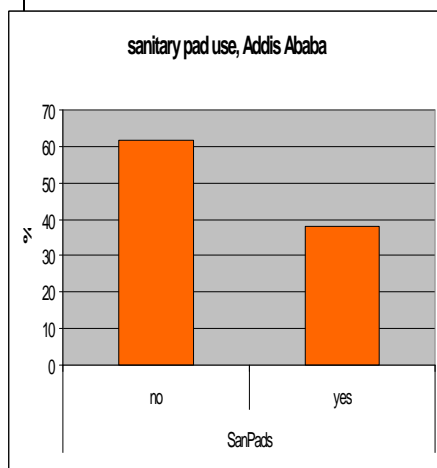
Avoids physical activity

A five grade likert scale was used to measure the girls' attitude towards avoiding physical activity during menstruation. Among the 343 respondents, 33.8% has strongly agreed on the question followed by 28.6% agree and 25.4% disagreed. But the proportion of those who disagree is very minimal that indicate most of the girls avoid physical activities with very restricted movement during their period.

Use of sanitary materials during menstruation

Sanitary protection material use was explored and it was found out that (123),36.6% use cotton,(198),58.9% use cloth material and only (38),11.4% use commercial sanitary pads. Sanitary pad use was further analyzed for rural and urban girls. This resulted in a significant

difference; 38 % of girls in Urban schools reported that they use commercial Sanitary pads, while only 8% reported use in rural areas. Most of the girls get first time information about sanitary material for protection is from their friends or elder sisters who use cloth material, cotton or pants and trousers. Parents may try to help girls get sanitary material with what ever is available in the house, old cloth material, pants and sometimes cotton buying appropriate commercial sanitary pads is unthinkable for most of the families as this is directly related to the economic constraints they are having. In addition the study tried to see the relationship between different sanitary pad use and class attendance Commercial sanitary pad use doesn't facilitate school attendance though girls using it said they feel more comfortable; and home made cloth materials doesn't prohibit girls from going to school



Oromia

not afford

to be

One girl from Limmu said,

~~"We heard about it but we didn't see it is not available in this area. Even if it is available I don't think my parents can afford to buy that thing for me every month".~~

~~A mother from Agaro said "we have more than one daughter and it is difficult to buy the thing that you are saying now. we can not afford to do that. Usually the girls are using what ever the mother or the elder sister is using in the house".~~

~~All FGD student and teacher participants concur with this idea. Both parents and girls described pads are not available and even if they are in the market most parents do think that it is not affordable to buy to buy every month.~~

~~School Environment Availability of Sanitation facilities~~

~~Girls may miss class each month during their period. this is as they said when they come to school they are confronted with lack and adequate and separate girls only latrines and water supplies for girls to comfortably change sanitary pads or wash themselves in privacy, they may be unable to remain comfortably in class during their menstrual days. An assessment of convenience of the school latrines; the majority (56 %) of all girls responded that school latrines are not good for use or friendly and when further probed why they are not convenient (132), 69.8% say they are not girls only and not friendly, (25),13.2% said it is not at all convenient ,(21),11.1% gave other reasons like no door, not clean etc~~

~~Those who agreed that latrines were convenient were more likely to not miss classes during menstruation (68%) as compared to(60%) for those who reported that they were not friendly and the Chi-square was significant.~~

~~This data is supported by the qualitative data. For example, the FGD teacher and student participants indicated that dirty, insufficient and insecure toilet facilities are a serious issue for the school community and particularly for girls. In many cases the toilets are not there and~~

~~or are not functional. There is no access to water, and in fact the students are asked to fetch water from the river and bring to school to clean the toilets. There are no hand washing facilities. Girls asked in the discussion said~~

~~—————"we have to Waite till we go back home it is not good to use this dirty toilet".~~

~~Most schools lack appropriate washing facilities due to lack of maintenance on available water pipes and few water points and in few schools there is no water at all. School waste collecting garbage and waste disposal systems are not sufficient. In some areas it is not in place at all. Some schools use baskets and pit holes as dry waste disposal system but the maintenance, replacement and management seem to be very difficult. These unfriendly school environments discourage girls from coming to school when they have their period. Most girls strongly support the idea that girls' menstruation and the school environment unfriendliness affect their school performance and attendance. In the key informant interview this condition was raised and discussed and the Jimma zone respondent said that~~

~~"This problem is well recognized by the zonal and woreda education offices .this was given a high priority and we have even discussed about it. I believe this is one of the factors for school drop-outs and from the point of gender equity as well. toilets should be separate for girls and boys. It is obvious most of the girls don't want to go there and use the toilet because there is no privacy and are not secured. The parent teacher association has to work with the school administration to minimize the problem"~~

~~"It is the woreda administration who have full mandate to allocate the yearly budget as per the priority. so if the schools have to be constructed the toilet and other sanitation facilities should be given due consideration" second key informant Jimma Zone~~

~~In association with the above fact the study shows that of girls who responded to the class missed during their period question 58% girls missed class from 1-3 and 21% 4-7 days in the last three months for different reasons and one of the major reason being the toilet and inconvenient and unfriendly school sanitation.~~

~~In assessing the convenience of their school latrines; the majority 56 % of all girls believe that school latrines are not convenient for use. When and when further probed as to why they latrines are not convenient (132), 69.8% say they are not girls only and friendly, (25),13.2% said it is not at all convenient , (21),11.1% gave other reasons like no doors, not clean etc. Most schools lack appropriate washing facilities due to lack of maintenance or available water pipes and few water points and in quite a number of rural schools there is no water at all. School waste collecting garbage and waste disposal systems are not sufficient. In some areas it is not in place at all. Some schools use baskets and pit holes as dry waste disposal system but the maintenance, replacement and management seem to be very difficult.~~

~~Psychological, Social-educational Effect of Menstruation~~

~~The onset of menstruation amongst girls is a factor that greatly impacts their psychological and emotional conditions including their education. This natural onset affects their school performance force them to be absent repeatedly from school which has a direct impact on their academic achievement and rate of transfer to the next level of education and number of years of study.~~

~~Most girls experienced first time menstruation with surprise or panic. Most of the girls do not have prior information about the onset and nature of menstruation. They expected menstruation after the age of 15 years but feel wrong when it start at the age of 10 or 11 years.~~

~~The FGD participant students enlighten that they recognized first time menstruation with unhealthy feeling including abdominal pain, back pain, fear, shame or shock.~~

~~"To start with I don't know any thing about it. I was in school and feel that I have to go to the toilet. I have asked my friend to accompany me. When I stand up I saw I was soiled with the blood. I have run away from school and went home. I have started to cry. I was too afraid to tell any one, but letter I told my mother to take me to a clinic as I thought it was some kind of illness" 13-year-old elementary school student~~

~~Another 14-year-old FGD participant girl also said~~

~~"When you first see your period it is very shocking and stressful. It is disturbing"~~

~~Since many parents some have the misconception that when girls starting menstruating it means they have started sexual intercourse. Most parents/mothers were married very early and their first experience of their period was after their first sexual experience and not from menstruation. Other women became pregnant during their first cycle and never experience a period until after their first pregnancy.~~

~~"One day my daughter came from school, she was bleeding, I lost my temper, and I repeatedly asked her what she committed in the school. I suspected she had sex, I punished her. My neighbor, a teacher came in and she told me this is her first menstruation, I didn't want to hear her, I know when a young girl bleeds, it is all what we have passed through"~~

~~A mother quoted in one FGD~~

~~Parents usually recognize girl's menstruation after a while but most of the family members do not have particular response for girl's first time menstruation. In most areas, girls do not~~

~~inform family members about the initiation of menstruation unless they seek financial, psychological or social support.~~

~~Most urban and few rural communities took menstruation as a natural course but significant proportion of rural community perceive or link starting menstruation with sexual initiation. In some rural area for example, it is believed that virgin girl do not have menstruation at all, she only start menstruation when she start sexual intercourse or married. The negative attitude is the linkage created between menstruation and sex which means sex before marriage is taboo and unacceptable by the community.~~

~~Parents agreed on the gradual change on attitude of community members on girls started period. They think this because they are not educated and don't have appropriate awareness and exposure for information regarding, puberty body change and menstruation is improving relatively.~~

~~the summary analysis also tried the rural and urban girls practice in utilizing commercial sanitary pad the result corresponds with the primary survey result that that sanitary pad use is much higher in urban and small towns than rural areas. Most girls never saw sanitary pads particularly in rural areas but most of them heard about it.~~

~~For the question posed for FGD group in Limmu, what do you do if you need to go to the toilet when you are having your period?, One student participant Limmu from said~~

~~"We don't come to school if the flow is heavy. If we are in class we will take a permission to go home". The other participant also said "No! we don't go there we don't to go there!!"~~

~~In some urban schools there are separate toilets rooms available for girls and boys but the biggest problem is these toilets share common wall. Girls are not comfortable to use them due to poor sanitation and mainly fearing boys' abuse.~~

~~“The toilets are not girl friendly. When a girl wants to go to the toilet she goes with her female friend fearing boy’s verbal abuse and possibly sexual abuse.” One teacher explained~~

~~In most of the schools toilets are not girl friendly, either they are not clean or have broken doors. In few rural schools boys and girls share same toilet in other cases the existing toilets are not enough compared to the number of students.~~

~~Girls also think that school toilets are not friendly and conducive, during menstruation. They feel uncomfortable to go to the toilet when they are on their period. Girls would like to have separated toilet far from boys’ toilet; clean with doors. They also wish to have appropriate hand washing facilities.~~

~~Most schools lack appropriate washing facilities due to lack of maintenance on available water pipes and few water points and in few schools there is no water at all.~~

~~Drop out rate~~

~~School drop out rate for girls is very significant in rural schools especially when we see higher grades. But it is not directly ascribed to the problem in relation to menstruation only and which this study can not provide concrete evidence as there are no documented data in the schools. Menstruation can be one of the reasons for the girls drop out rate, but it can be due to different confounding factors which need further research. Teachers and woreda education bureau heads including the school administration believe that menstruation can be one of the reasons for the girls drop out; the problem is it is not evidently and ear markedly documented as this matter is not subject for open discussion. Girls usually give other reasons to go home or stay out of class.~~

~~The need to support Girls during Puberty and Menstruation~~

~~Girls in average start menstruation at age of 12 years. The age is lower for urban girls than rural girls. The impact of girls' biological and physiological changes during puberty on girls' life is well recognized by girls, teachers and parents. The main factors determining the magnitude of impact are access to information, skill and opportunity to deal with the issues including the support from their parents, community and teachers.~~

Teachers Support and Role

~~"In school environment girls prefer to discuss with us. Male teachers are not preferred for discussion but these days younger male teachers have started to discuss with girls about puberty. We encourage male teachers' involvement because I think it is the role of both male and female teachers to support boys and girls at school" said one female teacher in Addis Ababa~~

~~In the key informant interview it was asked as to how the degree of participation of female and male teachers seen in the level of support and assistance they give to girls the Addis Ababa key interview participant said~~

~~"I don't like this question to have a sense of gender split. it depends on the individual perception and it also depend on the student's approach and closeness to male and female teachers as well. If the girl wants to talk about it openly I don't think there will be any one who doesn't want to help~~

~~When asked if they are given education on puberty menstruation and personal hygiene and if they discuss this issues with their teachers the Wolliso students said~~

~~"We don't learn much about it and we don't discuss about it with our teachers. If we are sick or have pain and need permission to go home we will say we are not feeling well or we are sick"~~

~~All students who were involved in the FGD share the same idea.~~

~~Teachers were asked if they can identify and tell girls on their period days when they teach in class and they say that through experience that they can identify girls on menstruation~~

~~"They will be different from other days, they are not active and some times they seem to be depressed, they don't want to stand up or be asked. we can see it from their face that they are in problem" Agaro teacher~~

~~all teachers participated in the FGD Teachers believe in the importance of teaching students particularly girls on life skill at younger age on reproductive health, puberty and body changes for better health, growth and development of children. In addition they point out that induction of this kind of awareness and knowledge will help girls to be empowered and more self assertive when they grow up.~~

~~They also believe there is a need to intensify girls support on reproductive health and related issues which have direct effect on the school attendance and performance. Currently, schools recognized the need to teach youth reproductive health and feminine hygiene and all schools established school clubs called "girls club" where most assistance for girls coming from.~~

~~The school curriculum introduced reproductive health and body growth, particularly in 4th and 6th grade science courses and 8th grade biology after curriculum revision done before 6 years. Teachers and people at a higher managerial position feel that it is not yet dealt with more depth to bring the intended awareness and knowledge so that students can be responsive to the new conditions and challenges they encounter.~~

~~When asked on the teaching material availability on puberty and hygiene one of the key informants responded that~~

~~"No we don't have a stand-alone guideline or teaching material which address the matter in depth on puberty and issues associated with it. But it is given and integrated in the science and biology subjects" Oromia regional bureau key informant~~

~~Teachers feel that talking to girls about puberty and its management should normally and primary the role of parents which should be backed by teachers as well as community, but because most parents cannot discuss the matter due to lack of information communication skills and education, Teachers feel that they have relative advantage than parents to teach girls on puberty related issues and how to encourage open discussion and brake the cultural taboo which is the critical problem~~

~~Almost key informant respondents agree on the resource limitation they have and the only way out is for the community to participate in what ever possible way to alleviate this critical problem. As a strategy they have sited fund raising and community mobilization programs to be helpful to leverage fund to address the problem of resource limitation that they have.~~

~~One of the challenges teachers identified during the discussion was lack of separate guideline or teaching material to teach girls and boys about puberty except school curriculum books for 4th and 6th grade science and 8th grade biology. There are some NGOs like Save the Children, Family guidance association and Ethiopian Red Cross society provide some education materials for reproductive health, HIV/AIDS and family planning educations.~~

~~Teachers suggested that it would be very helpful if life skill on puberty and other relevant topics incorporated in the curriculum and given as independent subject to minimize the oversight and to sustain the information transfer. life skill and other issues like puberty menstrual management and RH/HIV/AIDS information are given mainly through clubs undertaken by volunteer teachers and students.~~

~~Parents Support and Role~~

~~It appears girls' knowledge levels and understandings of puberty, menstruation and reproductive health are very low. They do not have prior information on maturation and menstruation. The girls have to address how to deal with problems with limited information and adapt by trial and error. As reported earlier many girls are not even comfortable discussing the issue.~~

~~Parents in general feel that they are incapable of teaching the girls about sexual maturation and menstruation, fathers because they feel it is a female task and mothers because this is a taboo discussing this things with children and culturally in correct, mothers prefer to leave it to teachers to discuss this issue with girls. but as shown in the earlier analysis girls report not feeling comfortable talking to teachers.~~

~~Being in this kind of none supportive environment the girls are left to collect scanty information on their own or from equally uninformed friends. This leaves girls rudderless during that critical time to guide them selves to enter the new chapter of their life, womanhood. Girls also indicated that they do not get any special psychological or other material support from their parents when they first experience their period. They don't even have separate room to have privacy to change or pass the pain or discomfort. Some times if the mother is suspicious of the situation she will provide her food or some hot staff to drink, but as seen in some of the interviews sometimes the attention is negative rather than positive.~~

~~In the focus group discussion almost all parents admitted that they did not do much effort to encourage parent daughter discussion or family discussion on puberty related issue. They think this because they are not educated and don't have appropriate awareness and exposure for information regarding, puberty body change and menstruation. But they The parents did~~

~~think that there a gradual change in the community perception about puberty and menstruation.~~

~~The policy environment to assist girls~~

~~To increase school enrollment rates with special emphasis to gender equity is one of the primary strategies for the Ethiopian education system. Ethiopia is one of the signatories of the millennium development goals to ensure equitable universal education by 2015. Add data on retention rates. Ther is data in community survey I think by HAPCO or possibly UN site.~~

~~But there is still a huge challenge in the retention of girl students and achieve their successful school completion as compared to their male counter parts. As discussed in the key informant interview with the regional education bureau heads it is evident that main focus of education system is mainly on Policy framework, educational decentralization, access, equity, quality and efficiency. It is also emphasized that improvement of educational quality and expand access to education with special emphasis on primary education in rural and undeserved areas, as well as the promotion of girls' education. In this regard the education bureau and the school administrations have put into place a variety of strategies to increase girls' participation and promotion rates as much as possible.~~

~~But on the ground there are still huge challenges and resource limitations to achieve a "quality" education system and favorable school environment. Excellence in education system is not only the teaching and learning process~~

~~"Now a days as per the bureau strategic direction we are trying to create and introduce child friendly and conducive teaching and learning environment. the bureau is working on the quality education package which include the school environment and in this regard the it look in to school facilities, teaching and learning process, enhancing community participation,~~

~~make sure that students are comfortably learn and stay safely in the school, evaluate the students performance and assist them as per the need they have to be supported". Key informant Addis Ababa education bureau~~

~~Again one of the questions posed for the interview was the need to give students life skill education and if the education curriculum has incorporated important topics so that it can be given as a subject. Below is typical of the attitudes given:~~

~~"This kind of issues are given as information and included in the teaching subjects as introduction to trigger questions from the students. It only give them some idea to let them research and read about it in more depth. the life skill issues are usually dalet with as co curricular subject and it depends on the individual teacher creativity and innovative thinking which also differ from individual to individual and school to school." Key informant Addis Ababa education bureau~~

~~It is evident that despite all the progress made to improve girls education there is a huge oversight to address the special needs of girls in the school setting. Entering the puberty age and the onset of menstruation will inevitably have an impact on girls' access to education. For girls who are able to continue attending and participating in school, the widespread reality of poor sanitary facilities, unawareness and minimal focus about menstruating girls' needs and experiences, can mean that the schooling experience for any girl passing in this natural phenomena can be far from a positive one.~~

~~The key informant asked about puberty education and menstrual management education given for the girls he said,~~

~~"Actually the teachers themselves have a problem to address this issue. they themselves are not mentally changed. they can not discuss this issue as open and as transparent as it should~~

~~be. the subject also is not addressed in depth to bring the necessary assertiveness and perception in the students" Ginchi woreda education bureau head~~

~~When asked about school latrines and sanitation in general and in relation to girl students in particular~~

~~"We are trying to include this issue in our yearly plan, but we still could not achieve the requirements on this particular issue. the big limitation we have is resource and material shortage. we are trying to construct separate latrines for female students as this can be one of the major obstacles for girls to come to school" Limmu woreda education bureau head the Oromia education bureau key informant said~~

~~"We know this is a very big problem but this is mainly associated with the resource capacity that the bureau has. This is something that the regional zonal and woreda education office has to do in coordination. Mainly this is directly the work of the woreda education bureau. they are the ones who allocate the budget as per need and priority. We know the toilet conditions and school sanitation particularly in most of the rural schools are very critically grave. The school administrations have to work with the community to improve this situation" As seen in the quantitative results girls miss class 1-3 days on the average because of their periods. There was a question to explore what kind of support and assistance they get to catch up the missed classes and~~

~~"To help female students we have tutorial classes which is given after the daily school schedule. this program needs to have the commitment of the teachers to see and verify the area of need and subject that the girls need to have support." Wolisso woreda Education bureau head~~

4. Discussion

This study has summarized the baseline result by only taking menstruating girls (in grade 4 and 5), parents and teachers to understand the key prevalence of knowledge, attitude and practices associated with puberty and menstruation. The qualitative portion of this research tried to understand the underlying factors that will provide additional relevant base line information to what ever small effort done to highlight the critical need to address adolescent girls' health and well-being, with a particular emphasis on the inter-connection between young girls in puberty age, menstrual management and education.

After an extensive search for reviewed articles and other literatures, it was evident that there are very limited amount of studies done on puberty and /or menstruation in Ethiopia. because of this reason extensive part of the literature review was taken from what was documented in the area of this research topic in other countries.

Puberty is a period during which the onset of sexual maturity occurs. It usually takes place between the ages of 10 and 15 in both sexes but sometimes occurs as early as 7 or 8 years of age in females³⁵ Puberty and adolescence can be challenging times for any girls. Although it may occur at different ages for different girls, adolescent girlhood is always a critical time of identity formation and a period of transition from childhood to womanhood. From references, literature and available health and education reports done in other countries, it appears that in developing countries, Asia and sub-Saharan Africa, girls' knowledge levels and understandings of puberty, menstruation and reproductive health are generally very low. As confirmed in this study in almost all cases 'menarche' is perceived as shameful if occurring in unmarried girls due to beliefs that its onset is somehow linked to sexual intercourse. Most of the girls in the study concur with the idea that menstruation is not a topic for discussion it is

~~some thing that the girl has to deal very quietly and privately. Most of them say that menstruation is a taboo subject even within their own families. They feel most of the time unable to discuss menstrual issues with any adult or family member including their mothers and fathers. Most of the respondents say they prefer to talk to their peers and some to their sisters. This situation on the other hand put all the matter to be shouldered by the girl and consequently gave the right to the families, schools and communities to ignore the situation. The FGD found out that girls experience first time menstruation with surprise or panic. Most of the girls do not have prior information about the onset and nature of menstruation and its management. Regarding their attitudes most girls think period days are not like other ordinary days, feels that they are less confident during menstruation, feels insecure and avoids physical activity including active class participation. This attitude can be attributed to less exposure to information and very minimal awareness and skills that are related with puberty and menstruation. The school curricula do not cover the topic of menstruation and puberty in depth to give girls required knowledge and minimize the negative perception that girls have about their period. The unfriendly school facilities and the quality and kind of sanitary materials girls use may create discomfort for girls in the classroom which is limiting factors for girls to fully participate in the class. It was markedly pointed out in the discussion that girls hesitate or refuse to stand up to answer questions or go in front of the class or participate in the sport activities during their menstruation due to fear of having stained their dresses. In some cases it was also indicated that male teachers and students show insensitivity to the challenges girls face in managing menstruation. Male teachers seem to not give due consideration to the urgent need that the girl might have. This is also another area to be focused on to give appropriate skill for male teachers to deal with the issue accordingly~~

~~Strategies engage young boys and girls and the school community in various ways to help expand their perception about their growth and physiological change and initiate greater acceptance of this new, but natural physiological and psychological transition. It is crucial to put on necessary and important information about puberty and menstruation in the teaching curriculum. This will help avoid the oversight and get focus in addressing the subject in depth to assist girls to gain basic knowledge and awareness.~~

~~The impact of girls' biological and physiological changes during puberty on girls' life is well recognized by girls, teachers and parents even though it is not very well preferred for discussion. The main factors determining the magnitude of impact on girls knowledge attitude and practice are access to appropriate information, life skill training and opportunity to deal with the issues with full awareness including the support from their parents, teacher and the community.~~

~~In the quantitative study where girls were asked to make a Self assessment about their own Knowledge about changes related with puberty indicated that almost half of the number of respondents who have attempted to answer the question were in poor or fair category. On the other the hand very interesting finding is that the level of knowledge for urban and rural girls has no statistically significant difference. This very well indicates that the information education and awareness creation in the schools are very low across the board.~~

~~In this study the impact of puberty change on their educational performance was assessed in relation to school attendance and one out of three girls has missed at least 1-3 school days in the last semester. The study has also confirmed that all groups (girls, teachers and parents) strongly support the assumption that girls' menstruation and related issues has sizeable effect on school performance and attendance. This considerable missed class's situation can be~~

~~associated with the discomforts and illusions instigated by cultural taboos and misconceptions of menstruation. Increasing girls' awareness on puberty, body development and general adolescent development will assist them build life skills and competence in their day-to-day interaction and decisions that they make.~~

~~In most schools there are no forum for parents to be involved in youth reproductive health discussion and care needed for their daughters during puberty. This gap can be filled by the teacher and parent association committee in all schools. This school support structure and the school management can play a pivotal role in bring parents and other community members forward to assist and support girls coping up with challenges they will face from physiological to social encounters during their pubertal. As reported earlier most want more information and education on reproductive health and puberty related issues.~~

~~The school sanitation and conditions of school latrines are the major problem sited by teachers and students. girls view school latrines to be unsafe. Most of the school latrines are very dirty and not geographically separated from the boys' latrines. There should be an urgent action to be taken by school administrations and woreda and regional education bureaus to give due consideration and prioritization to alleviate this critical problem.~~

Conclusion and Recommendations

Conclusion

~~It is becoming obvious that multi-sectoral approaches are needed to address menstruation Challenges and its consequences for girls to improve and enhance girl's confidence, to adjust appropriately to puberty and improve their education performance. In service training programs are required for teachers and education authorities in order to appreciate the problem and give the required assistance for girls in the school. Appropriate Sensitization programs should be designed at a community level to break the taboos towards menstruation. This study has tried to elucidate the need to link the education system with necessary life skill trainings on health education reproductive health and puberty education to enhance the knowledge and informed practice for girls who are transiting from child hood to womanhood.~~

~~Recommendations~~

~~1.This study has shaded light on the magnitude, cause and effect of problems associated with puberty and menstruation; it recommend a parent, girls and school based integrated program that involves: parents girls, existing clubs like girls clubs and teachers in this. Similarly, the Health Extension program can be used to promote and address girls' puberty and menstruation related issues at the house level.~~

~~2.Providing girls training on puberty and feminine hygiene can lower absenteeism and can encourage girls to be self assertive and confident enough to come to school.~~

~~3.There is lack of puberty educational material; it is a paramount importance that teaching young students and in particular girls on physiological changes, menstruation, puberty body changes. Therefore there should be periodic capacity building trainings for the teachers and there should also be necessary teaching materials available in the schools.~~

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~~4.The co-curricular subjects can be easily integrated in the main subjects given in the curriculum~~

~~This research finding can be a wake up call for the education system to revisit and identify the missing link between academic and life skill education for students. The teaching curriculum should incorporate important life skill issues so that there will not be an oversight in dealing with them. Multi-channel communication approach that could address parents: Teachers and the students should be in place. This will increase the involvement of teachers (male and female) parents and the community at large. School clubs, parent teacher associations and other community forums can play a pivotal role in enhancing and promoting open communication and community dialog on puberty and related issues.~~

~~Sanitary pads are important for girls if affordable or appropriate guide should be given to girls as to how and what to use as a sanitary protection to get better protection and enhance their confidence in school participation and minimize absenteeism.~~

~~6.The school latrines in almost all schools are in the worst condition that no one can ever imagine. It seems that the school administrations and the system are not focusing on the problem. Girls are intimidated by the situation and it is one of the reasons they report for their being absent during their period. Constructing geographically separated and improved latrines should be a priority to alleviate the problem. having an appropriate sanitation facilities could also serve to improve other aspects of health conditions as well as well~~

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Annex



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1. Student interview guide KAP quantitative

2. Parent FGD guide

3. key informant guide

3.teacher FGD guide

(consents will be attached with the hard copy)

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